SLV-SE210B/SE210D/SE210G/ SX110A/SX110B
RMT-V257D/V257E

SERVICE MANUAL

France Model
SLV-SE210B/SX110B
Italy Model
Germany Model
North Europe Model
SLV-SE210D/SX110A
UK Model
SLV-SE210G

Photo: SLV-SE210

VHS

TS-10 MECHANISM

www.rtv-horvat-dj.hr

Refer to the SERVICE MANUAL of VHS MECHANICAL ADJUSTMENT MANUAL VII for MECHANICAL ADJUSTMENTS. (9-921-790-11)

SPECIFICATIONS

System

Channel coverage
- PAL (I): (SLV-SE210G)
  - UHF B21 to B69
- PAL (B/G) (SLV-SE210B/SE210D/SX110B/SX110A):
  - VHF E2 to E12
  - Italiens VHF A to H
  - UHF E21 to E69
  - CATV S01 to S05, S1 to S20
  - HYPER S21 to S41
- SECAM (L) (SLV-SE210B/SX110B):
  - VHF F2 to F10
  - UHF F21 to F69
  - CATV B to Q
  - HYPER S21 to S41

RF output signal (SLV-SE210G/SE210D/SX110D)
- UHF channels 21 to 69

Aerial out
- 75-ohm asymmetrical aerial socket

Tape speed
- SP: PAL 23.39 mm/s (recording/playback)
  - NTSC 33.35 mm/s (playback only)
  - SECAM (SLV-SE210B/SX110B) 23.39 mm/s (recording/playback)
  - MESECAM (SLV-SE210B/SE210D/SX110B/SX110D) 23.39 mm/s (recording/playback)
- LP: PAL (SLV-SE210G) 11.70 mm/s (recording/playback)
  - NTSC (SLV-SE210G) 16.67 mm/s (playback only)

Maximum recording/playback time
- 10 hrs. in LP mode (with E300 tape) (SLV-SE210G)
- 5 hrs. in SP mode (with E300 tape)

Rewind time
- Approx. 60 sec. (with E180 tape)

Inputs and outputs

AV1 (EURO AV)
- 21-pin
- Video input: pin 20
- Audio input: pins 2 and 6
- Video output: pin 19
- Audio output: pins 1 and 3

AV2 IN (SLV-SE210B/SE210D)
- 21-pin
- Video input: pin 20
- Audio input: pins 2 and 6

General

Power requirements
- 240 V: (SLV-SE210G)
- 230 V: (SLV-SE210B/SE210D/SX110A/SX110B)
- AC, 50 Hz

Power consumption
- 15 W
- 3 W (ECO. MODE is set to ON, Standby mode)

Operating temperature
- 5 C to 40 C

Storage temperature
- –20 C to 60 C

Dimensions
- Approx. 360 × 94 × 255 mm (w/h/d) including projecting parts and controls

Mass
- Approx. 2.8 kg (SLV-SE210G)
- Approx. 2.6 kg (SLV-SE210B/SE210D/SX110A/SX110B)

Supplied accessories

Remote commander (1)
R6 (size AA) batteries (2)
Aerial cable (1)
PERITEL cable (1) (SLV-SE210B/SX110B)

Design and specifications are subject to change without notice.

VIDEO CASSETTE RECORDER

SONY®

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer.

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Look for unauthorized replacement parts, par-ticularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
4. Look for parts which, through functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replace-ment.
5. Check the line cord for cracks and abrasion.
   Recommend the replacement of any such line cord to the customer.
6. Check the B+ voltage to see it is at the values specified.
6. Check the antenna terminals, metal trim, “metallized” knobs, screws, and all other exposed metal parts for AC leakage.
   Check leakage as described below.

LEAKAGE TEST

The AC leakage form any exposed metal parts to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5mA (500 microampers).
Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as Simpson 229 or RCA WT-540A. Follow the manufactures' instructions to use these instruments.
2. A battery operated AC milliammerter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The “limit” indication is 0.75V, so analog meters must have an accurate lowvoltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

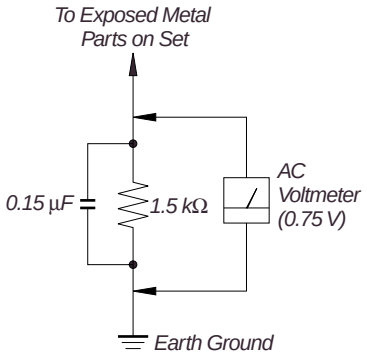

Fig. A. Using an AC voltmeter to check AC leakage.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUB-LISHED BY SONY.

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SERVICE NOTE

1. MODE SWITCH (PROGRAM SWITCH) ASSEMBLY POINT

1) When installing the ass'y deck on the Main PCB, be sure to align the assembly point of mode switch.

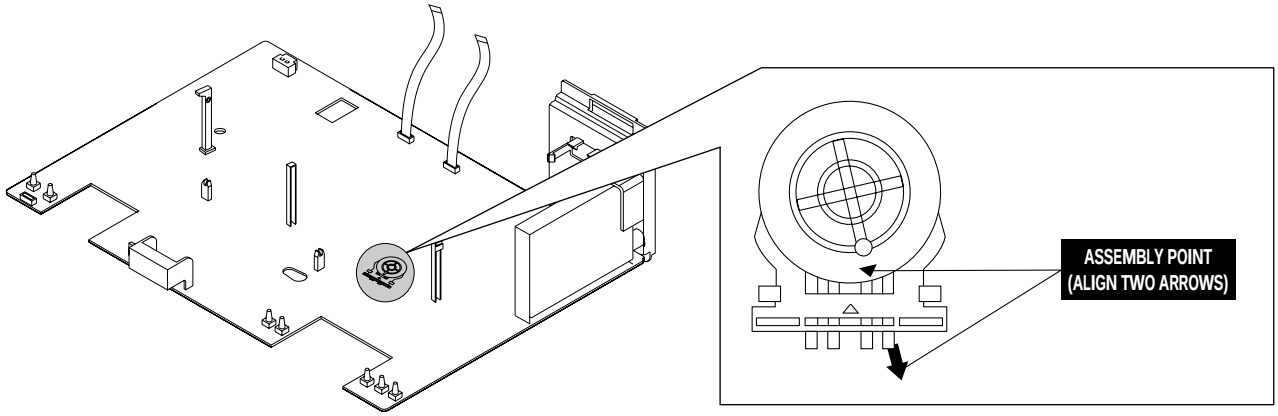


Fig. 1

2. HOW TO EJECT THE CASSETTE TAPE

(If the unit does not operate on condition that tape is inserted into housing ass'y)

1) Turn the Gear Worm ❶ clockwise in the direction of arrow with screw driver. (See Fig. 2)
   (Other method ; Remove the screw of Motor Load Ass'y, Separate the Motor Load Ass'y)
2) When Slider S, T are approached in the position of unloading, rotate holder Clutch counterclockwise after inserting screw driver in the hole of frame's bottom in order to wind the unwiunded tape. (Refer to Fig. 3)
   (If you rotate Gear Worm ❶ continuously when tape is in state of unwinding, you may cause a tape contamination by grease and

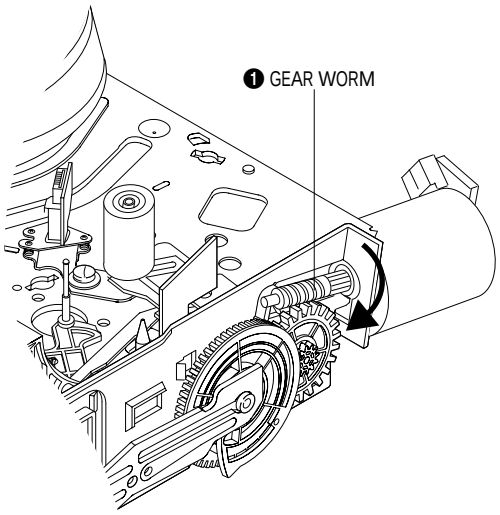


Fig. 2

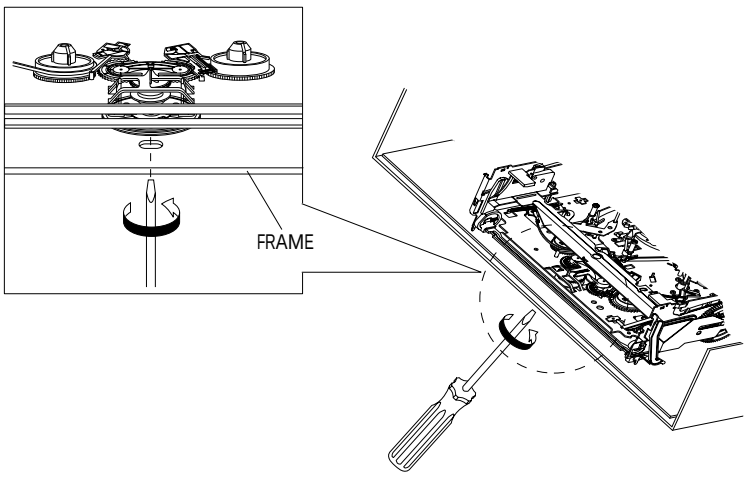


Fig. 3

3. EEPROM INITIALIZATION AND DISCHARGING THE BACKUP CAPACITOR

3-1. NV-RAM (EEPROM) Initialization Clear the EEPROM Using the TEST Button on the JIG Remote Controller

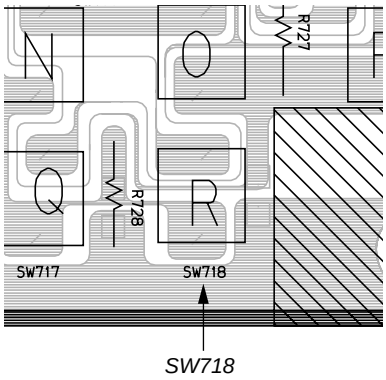
1) Plug the VCR into the mains.
   Switch on the VCR by pressing (ON/STANDBY) on the remote controller.
2) Press (TEST) button on the JIG remote controller and released.
3) Within 2 seconds, press the (CLEAR) button on the remote controller.
   Result: The EEPROM will be cleared.
4) During the clearing, the "TEST" indication flashes on the front of the VCR.
   The process will finish after a few seconds.(2-3 seconds)
5) After exiting the display "TEST" to normal display.
6) Press the (ON/STANDBY) button to switch off the VCR.
7) Disconnect the power supply the VCR.

   It is important that you make sure ;
   Do not plug the VCR into the mains after clearing EEPROM to ensure that Auto set up procedure works correctry for end users.

3-2. NV-RAM (EEPROM) Initialization Clear the EEPROM without Using the TEST Button on the JIG Remote Controller

1) Plug the VCR into the mains.
   Switch on the VCR by pressing (ON/STANDBY) on the remote controller.
2) Press the TACT switch (SW718) on the main PCB and released.
3) Within 2 seconds, press the (CLEAR) button on the remote controller.
   Result: The EEPROM will be cleared.
4) During the clearing, the "TEST" indication flashes on the front of the VCR.
   The process will finish after a few seconds.(2-3 seconds)
5) After exiting the display "TEST" to normal display.
6) Press the (ON/STANDBY) button to switch off the VCR.
7) Disconnect the power supply the VCR.

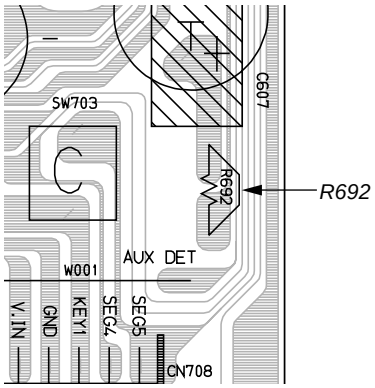
   It is important that you make sure ;
   Do not plug the VCR into the mains after clearing EEPROM to ensure that Auto set up procedure works correctry for end users.



3-3. MICOM RESET (Backup Release)

The automatic adjustment cannot be executed unless the backup battery is discharged even if the memory is initialized.
Release the backup power as follows only when the adjustment is going to be mode in an ealier time after the power is turned off.

1) Open the Top cabinet.
2) Short the R692 to TU Shield GND for a few seconds. (1 or 2 seconds)
3) Now the VCR all cleared EEPROM and reseted MICOM same as factory pre-set.



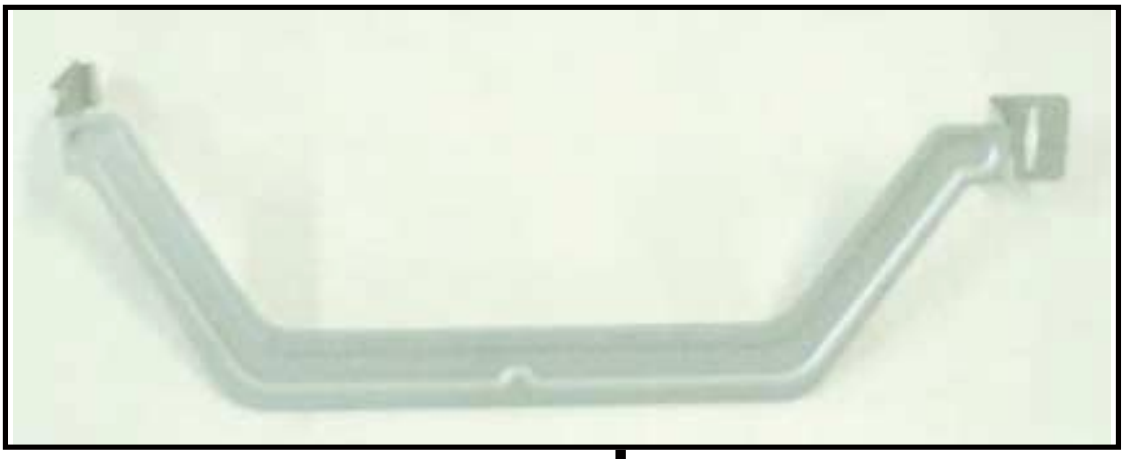
4. HOW TO TROUBLESHOOT

Circuit board check jig

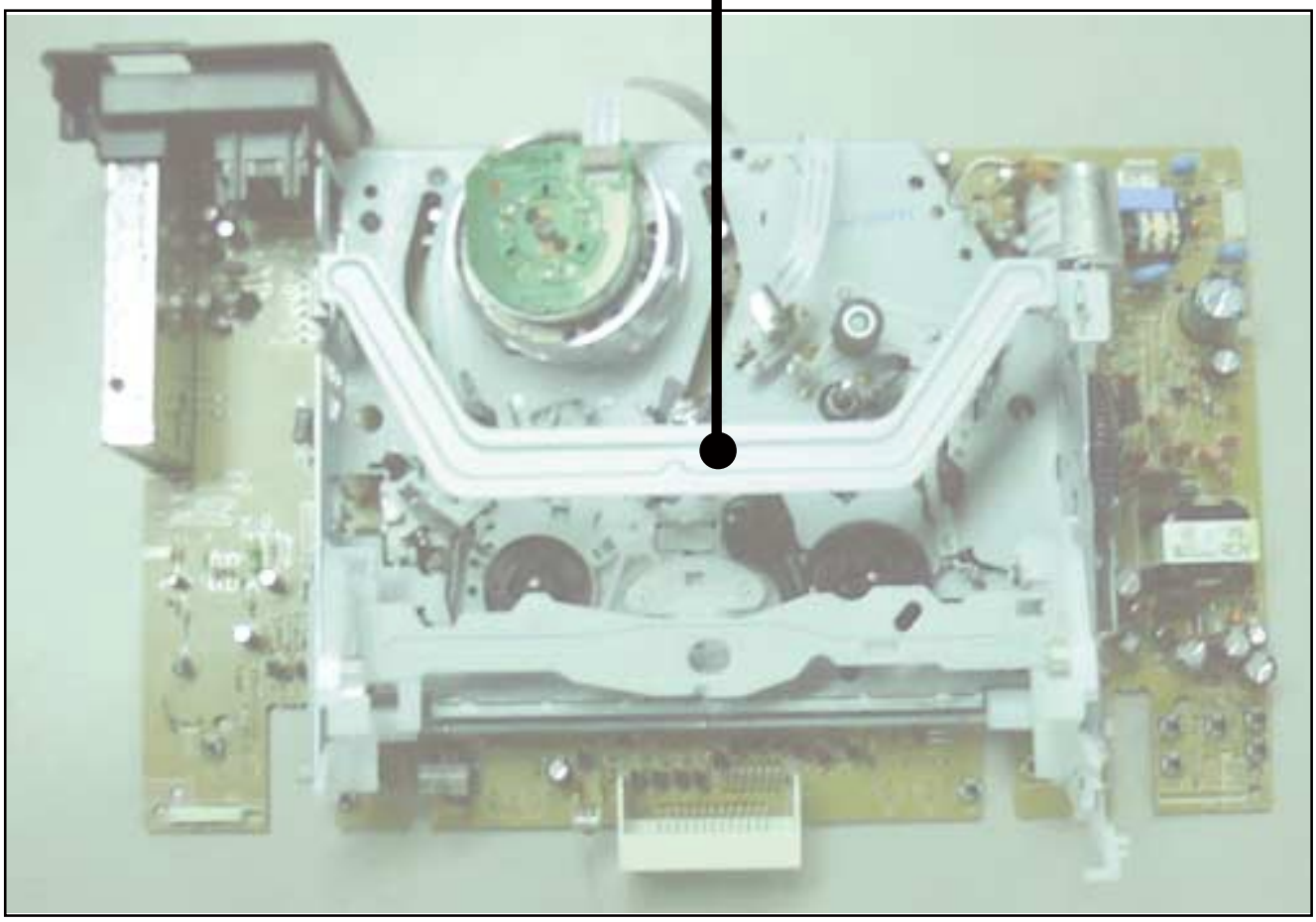
Bracket-Handling: Part No. 3-067-793-01

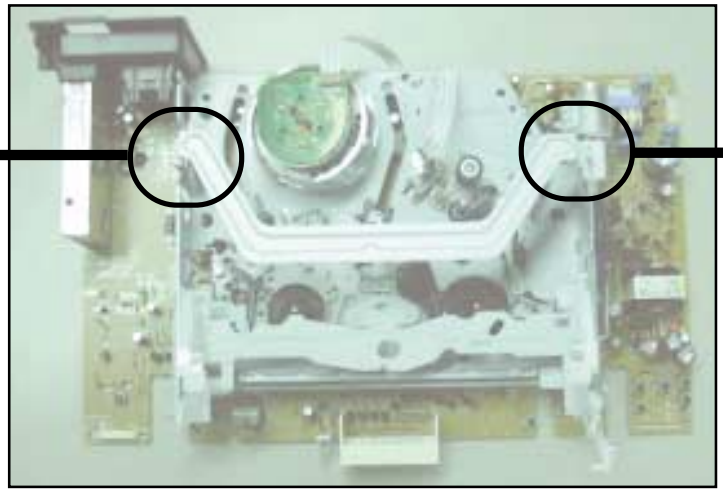
How to use the jig: When you want to check the conductor side of the Main board, attch the jig first and the turn over the MD Ass'y and the Main board.

BRACKET-HANDLING

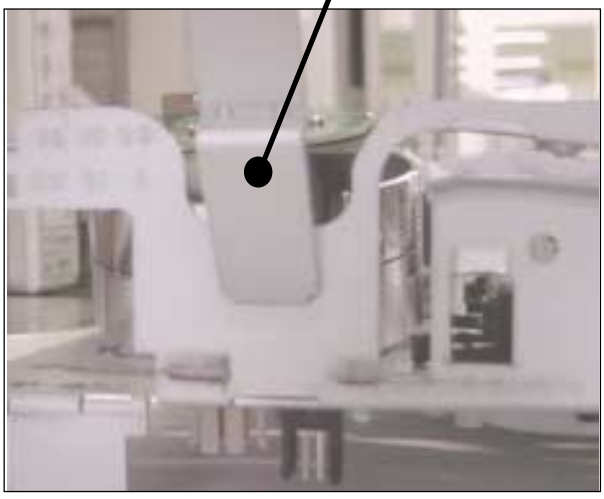


Assembly of Bracket-Handling

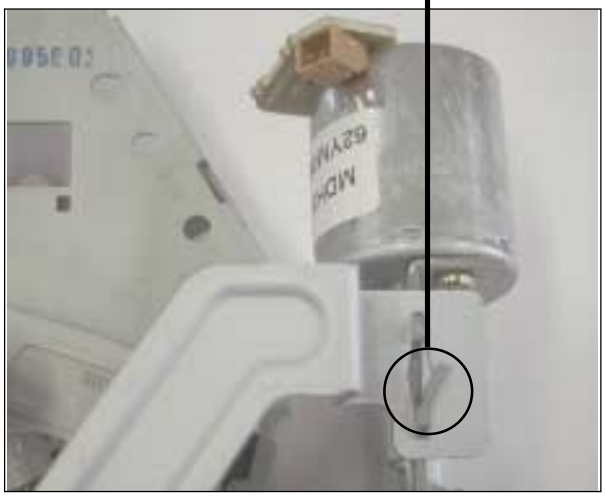




BRACKET-HANDLING



Twist



SECTION 1
GENERAL

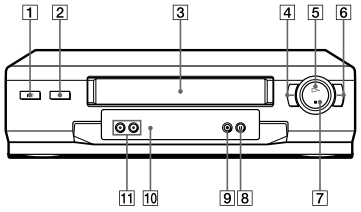
This section is extracted from instruction manual. (SLV-SE210G model)

Getting Started

Index to parts and controls

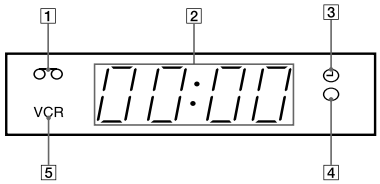
Refer to the pages indicated in parentheses ( ) for details.

Front panel



1 I/⏻ (on/standby) switch (33)
2 ⏏ (eject) button (27)
3 Tape compartment
4 ◀◀ (rewind) button (27) (39)
5 ▷ (play) button (27) (39)
6 ▶▶ (fast-forward) button (27) (39)
7 ■ (stop) button (27) (47)
8 ❚❚ (pause) button (27) (47)
9 ● REC (record) button (29) (40) (47)
10 Remote sensor (10)
11 PROGRAM +/– buttons (39) (43)

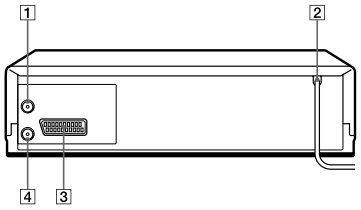
Display window



1 Tape indicator (35)
2 Time counter/clock/line/programme position indicator (27) (29) (47)
3 Timer indicator (33) (37)
4 Recording indicator (29)
5 VCR indicator (13) (30)

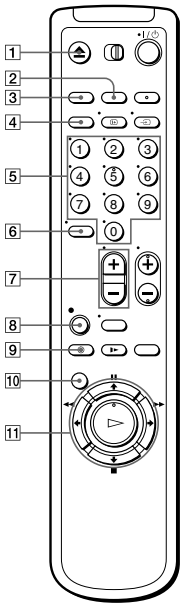
continued

Rear panel



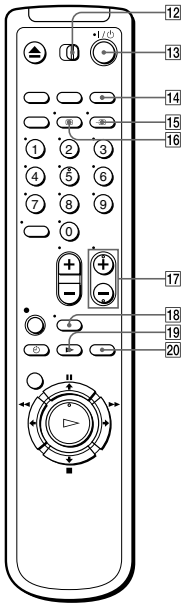
1 IN FROM ANT. (in front antenna) connector (12) (13)
2 Mains lead (14)
3 AV1 (EURO AV) connector (13) (46)
4 OUT TO TV connector (12) (13)

Remote commander



1 ⏏ EJECT button (27)
2 COUNTER/REMAIN button (30)
3 CLEAR button (27) (32) (41)
4 SP (Standard Play)/LP (Long Play) button (29)
5 Programme number buttons (11) (30)
6 -/-- (ten's digit) button (11) (30)
7 (volume) +/– buttons (*for TV*) (11)
8 ● REC (record) button (29) (40)
9 TIMER button (32) (36)
10 MENU button (25) (41)
11 ❚❚ PAUSE/↑ button (25) (27)
■ STOP/↓ button (25) (27)
◀◀ REW (rewind)/← button (27) (39)
▶▶ FF (fast-forward)/→ button (27) (39)
▷ PLAY/OK button (25) (27)

continued



12 TV / VIDEO remote control switch (10)

13 I/⏻ (on/standby) switch (11) (33)

14 INPUT SELECT button (30) (37) (47)

15 TV/VIDEO button (11) (13) (30)

16 DISPLAY button (30)

17 PROG (programme) +/– buttons (11) (29)

18 WIDE button (*for TV*) (11)

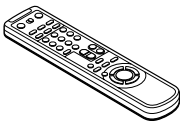
19 SLOW button (39)

20 ×2 button (39)

Step 1 : Unpacking

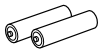
Check that you have received the following items with the VCR:

- Remote commander



- Aerial cable

- R6 (size AA) batteries

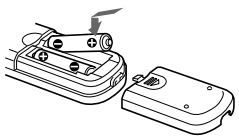


Step 2 : Setting up the remote commander

Inserting the batteries

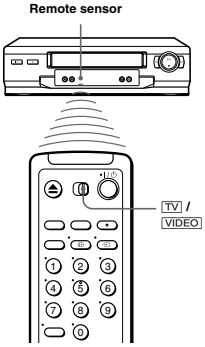
Insert two R6 (size AA) batteries by matching the + and – on the batteries to the diagram inside the battery compartment.

Insert the negative (–) end first, then push in and down until the positive (+) end clicks into position.

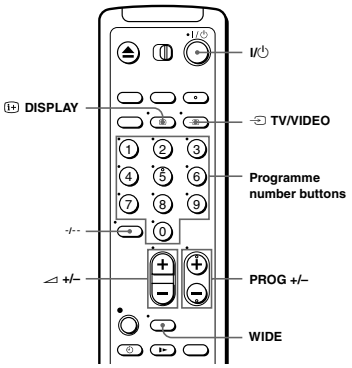


Using the remote commander

You can use this remote commander to operate this VCR and a Sony TV. Buttons on the remote commander marked with a dot (•) can be used to operate your Sony TV. If the TV does not have the symbol near the remote sensor, this remote commander will not operate the TV.



To operate	Set TV / VIDEO to
the VCR	VIDEO and point at the remote sensor at the VCR
a Sony TV	TV and point at the remote sensor at the TV



TV control buttons

To	Press
Set the TV to standby mode	I/⏻
Select an input source: aerial in or line in	TV/VIDEO
Select the TV's programme position	Programme number buttons, -/--, PROG +/–
Adjust the volume of the TV	+/–
Call up the on-screen display	DISPLAY
Switch to/from wide mode of a Sony wide TV.	WIDE

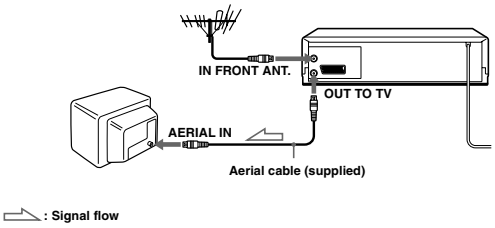
Notes

- With normal use, the batteries should last about three to six months.
- If you do not use the remote commander for an extended period of time, remove the batteries to avoid possible damage from battery leakage.
- Do not use a new battery together with an old one.
- Do not use different types of batteries together.
- Some buttons may not work with certain Sony TVs.

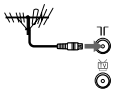
Step 3 : Connecting the VCR

If your TV has a Scart (EURO-AV) connector, see page 13.

If your TV does not have a Scart (EURO-AV) connector



1 Disconnect the aerial cable from your TV and connect it to IN FRONT ANT. on the rear panel of the VCR.

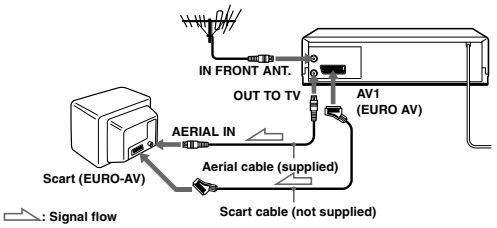


2 Connect OUT TO TV of the VCR and the aerial input of your TV using the supplied aerial cable.

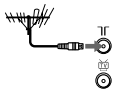
Note

- When you connect the VCR and your TV only with an aerial cable, you have to tune your TV to the VCR (see page 14).

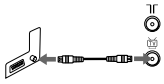
If your TV has a Scart (EURO-AV) connector



1 Disconnect the aerial cable from your TV and connect it to IN FRONT ANT. on the rear panel of the VCR.



2 Connect OUT TO TV of the VCR and the aerial input of your TV using the supplied aerial cable.



3 Connect AV1 (EURO AV) on the VCR and the Scart (EURO-AV) connector on the TV with the optional Scart cable.

This connection improves picture and sound quality. Whenever you want to watch the VCR picture, press ⇨ TV/VIDEO to display the VCR indicator in the display window.

Step 4 : Setting up the VCR with the Auto Set Up function

Before using the VCR for the first time, set up the VCR using the Auto Set Up function. With this function, you can set the TV channels, guide channels for the VIDEO Plus+ system, and VCR clock automatically.

1 Turn on your TV and set it to the video channel.

If your TV does not have a Scart (EURO-AV) connector, tune the TV to channel 21 (the initial RF channel for this VCR). Refer to your TV manual for TV tuning instructions. If the picture does not appear clearly, see "To change the RF channel."

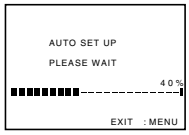
2 Connect the mains lead to the mains.

The VCR automatically turns on, and the message for the Auto Set Up function appears.

3

Press OK.

The VCR starts searching for all of the receivable channels and presets them in the appropriate order for your local area.



If you want to change the order of the channels or disable unwanted programme positions, see "Changing/disabling programme positions" on page 20.

After the search or download is complete, the current time appears for any stations that transmit a time signal. If the time does not appear, set the clock manually. See "Setting the clock" on page 25.

To cancel the Auto Set Up function

Press MENU.

To change the RF channel

If the picture does not appear clearly on the TV, change the RF channel on the VCR and TV. Select INSTALLATION from the menu, then press ↑/↓ to highlight VCR OUTPUT CH and press →. Select the RF channel by pressing the ↑/↓ buttons. Then, tune the TV to the new RF channel so that a clear picture appears.

Tip

- If you want to change the language for the on-screen display, see page 16.

Notes

- Whenever you operate the Auto Set Up function, some of the settings (VIDEO Plus+, timer, etc.) will be reset. If this happens, you have to set them again.
- After using the Auto Set Up function, the message for the Auto Set Up does not appear automatically when you connect the mains lead again. If you want to use the Auto Set Up function again, press MENU, then press ↑/↓/←/→ to highlight INSTALLATION and press OK. Press ↑/↓ to highlight AUTO SET UP, then repeat the procedure from step 3.

Selecting a language

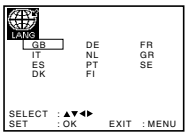
If you prefer an on-screen language other than English, use the on-screen display to select another language.

Before you start…

- Turn on the VCR and the TV.
- Set the TV to the video channel.
- Refer to “Index to parts and controls” for button locations.

1 MENU

Press MENU, then press ↑/↓/←/→ to highlight LANGUAGE SET and press OK.



2

Press ↑/↓/←/→ to highlight the abbreviation of the desired language from the table below, then press OK.

The abbreviations of the languages are as follows:

Abbreviation	Language
GB	English
DE	German
FR	French
IT	Italian
NL	Dutch
GR	Greek

Abbreviation	Language
ES	Spanish
PT	Portuguese
SE	Swedish
DK	Danish
FI	Finnish

Presetting channels

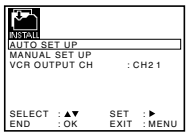
If some channels could not be preset using the Auto Set Up function, you can preset them manually.

Before you start…

- Turn on the VCR and the TV.
- Set the TV to the video channel.
- Refer to “Index to parts and controls” for button locations.

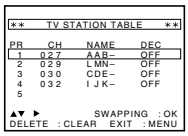
1 MENU

Press MENU, then press ↑/↓/←/→ to highlight INSTALLATION and press OK.



2

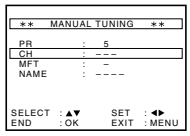
Press ↑/↓ to highlight MANUAL SET UP, then press →.



3

Press ↑/↓ to highlight the row which you want to preset, then press →.

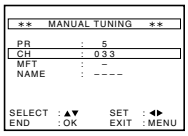
To display other pages for programme positions 6 to 80, press ↑/↓ repeatedly.



continued

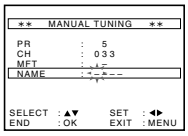
4

Press ←/→ repeatedly until the channel you want is displayed.



5

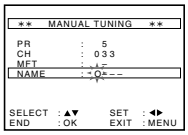
Press ↑/↓ to highlight NAME, then press →.



6

Enter the station name.

1 Press ↑/↓ to select a character.
Each time you press ↑, the character changes as shown below.
A → B → … → Z → 0 → 1 → … → 9 → A



2 Press → to set the next character.
The next space is flashed.
To correct a character, press ←/→ until the character you want to correct is flashed, then reset it.

You can set up to 4 characters for the station name.

7

Press OK to confirm the station name.

8 MENU

Press MENU to exit the menu.

If the picture is not clear

If the picture is not clear, you may use the Manual Fine Tuning (MFT) function. After step 4, press ↑/↓ to select MFT. Press ←/→ to get a clear picture, then press MENU to exit the menu.

Note

- When adjusting MFT, the menu may become difficult to read due to interference from the picture being received.

Changing/disabling programme positions

After setting the channels, you can change the programme positions as you like. If any programme positions are unused or contain unwanted channels, you can disable them.

You can also change the station names. If the station names are not displayed, you can enter them manually.

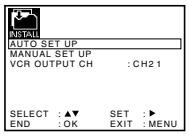
Changing programme positions

Before you start…

- Turn on the VCR and the TV.
- Set the TV to the video channel.
- Refer to "Index to parts and controls" for button locations.

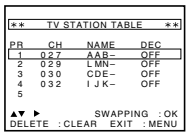
1 MENU

Press MENU, then press ↑/↓/←/→ to highlight INSTALLATION and press OK.



2

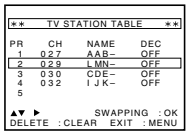
Press ↑/↓ to highlight MANUAL SET UP, then press →.



3

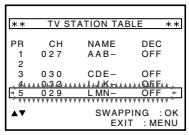
Press ↑/↓ to highlight the row which you want to change the programme position.

To display other pages for programme positions 6 to 80, press ↑/↓ repeatedly.



4

Press OK, then press ↑/↓ to move to the desired programme position.



5

Press OK to confirm the setting.

6

To change the programme position of another station, repeat steps 3 through 5.

7 MENU

Press MENU to exit the menu.

Disabling unwanted programme positions

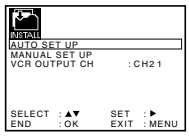
After presetting channels, you can disable unused programme positions. The disabled positions will be skipped later when you press the PROG +/– buttons.

Before you start…

- Turn on the VCR and the TV.
- Set the TV to the video channel.
- Refer to "Index to parts and controls" for button locations.

1 MENU

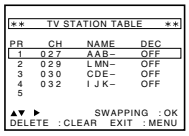
Press MENU, then press ↑/↓/←/→ to highlight INSTALLATION, and press OK.



continued

2

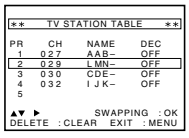
Press ↑/↓ to highlight MANUAL SET UP, then press →.



3

Press ↑/↓ to highlight the row which you want to disable.

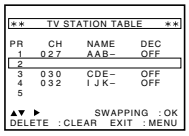
To display other pages for programme positions 6 to 80, press ↑/↓ repeatedly.



4 CLEAR

Press CLEAR.

The selected row will be cleared as shown on the right.



5

Repeat steps 3 and 4 for any other programme positions you want to disable.

6 MENU

Press MENU to exit the menu.

Note

- Be sure to select the programme position you want to disable correctly. If you disable a programme position by mistake, you need to reset that channel manually.

Changing the station names

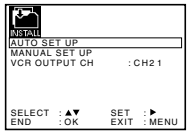
You can change or enter the station names (up to 4 characters). The VCR must receive channel information for station names to appear automatically.

Before you start…

- Turn on the VCR and the TV.
- Set the TV to the video channel.
- Refer to "Index to parts and controls" for button locations.

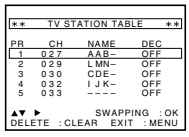
1 MENU

Press MENU, then press ↑/↓/←/→ to highlight INSTALLATION and press OK.



2

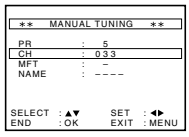
Press ↑/↓ to highlight MANUAL SET UP, then press →.


** TV STATION TABLE **
PR CH NAME DEC
1 027 AAB– OFF
2 029 LMN– OFF
3 030 CDE– OFF
4 032 IJK– OFF
5 033 ---- OFF
▲▼ ▶ SWAPPING : OK
DELETE : CLEAR EXIT : MENU

3

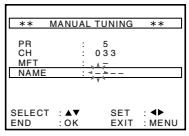
Press ↑/↓ to highlight the row which you want to change or enter the station name, then press →.

To display other pages for programme positions 6 to 80, press ↑/↓ repeatedly.



4

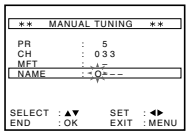
Press ↑/↓ to highlight NAME, then press →.



continued

5 Enter the station name.

1 Press ↑/↓ to select a character.
Each time you press ↑, the character changes as shown below.
A → B → … → Z → 0 → 1 → … → 9 → A



2 Press ➡ to set the next character.
The next space is flashed.
To correct a character, press ⬅/➡ until the character you want to correct is flashed, then reset it.

You can set up to 4 characters for the station name.

6 Press OK to confirm the new name.

7 Press MENU to exit the menu.

Setting the clock

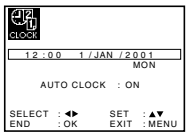
You must set the time and date on the VCR to use the timer features properly.

The Auto Clock Set function works only if a station in your area is broadcasting a time signal.

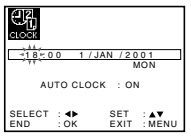
Before you start…

- Turn on the VCR and the TV.
- Set the TV to the video channel.
- Refer to “Index to parts and controls” for button locations.

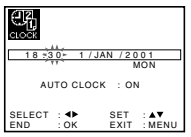
1 Press MENU, then press ↑/↓/⬅/➡ to highlight CLOCK SET and press OK.



2 Press ↑/↓ to set the hour.



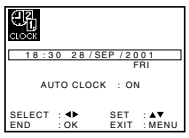
3 Press ➡ to select the minutes and set the minutes by pressing ↑/↓.



continued

4 Set the day, month, and year in sequence by pressing ➡ to select the item to be set, and press ↑/↓ to select the digits, then press ➡.

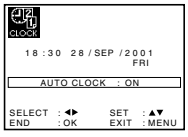
The day of the week is set automatically.



5 Press ↑/↓ to select ON for the setting the Auto Clock Set function.

The VCR automatically set the clock by the channel between PR01 to PR05 broadcasting the time signal.

If you do not need the Auto Clock Set function, select OFF.



6 Press MENU to exit the menu.

Tips

- If you set AUTO CLOCK to ON, the Auto Clock Set function is activated whenever the VCR is turned off. The time is adjusted automatically by making reference to the time signal from the station.
- To change the digits while setting, press ⬅ to return to the item to be changed, and select the digits by pressing ↑/↓.

Basic Operations

Playing a tape

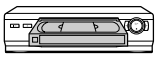
Before you start...

- Refer to “Index to parts and controls” for button locations.

1 Turn on your TV and set it to the video channel.

2 Insert a tape.

The VCR turns on and starts playing automatically if you insert a tape with its safety tab removed.



3 Press ▷ PLAY.

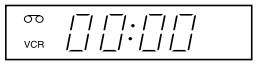
When the tape reaches the end, it will rewind automatically.

Additional tasks

To	Press
Stop play	■ STOP
Pause play	❚❚ PAUSE
Resume play after pause	❚❚ PAUSE or ▷ PLAY
Fast-forward the tape	▶▶ FF during stop
Rewind the tape	◀◀ REW during stop
Eject the tape	⏏ EJECT

To use the time counter

Press CLEAR at the point on the tape that you want to find later. The counter in the display window resets to “00:00.” Search for the point afterwards by referring to the counter.



To display the counter on the TV screen, press DISPLAY.

continued

Notes

- The counter resets to “00:00” whenever a tape is reinserted.
- The counter stops counting when it comes to a portion with no recording.
- Depending on your TV, the following may occur while playing an NTSC-recorded tape:
  – The picture becomes black and white.
  – The picture shakes.
  – No picture appears on the TV screen.
  – Black streaks appear horizontally on the TV screen.
  – The colour density increases or decreases.
- While setting the menu on the TV screen, buttons for playback on the remote commander do not function.

Recording TV programmes

Before you start...

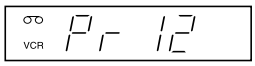
- Refer to “Index to parts and controls” for button locations.

1 Turn on your TV and set it to the video channel.

2 Insert a tape with its safety tab in place.

3 • PROG

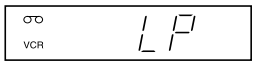
Press PROG +/– to select the programme position you want to record.



4 SP / LP

Press SP/LP to select the tape speed, SP or LP.

LP (Long Play) provides recording time twice as long as SP. However, SP (Standard Play) produces better picture and audio quality.



5 ●REC

Press ● REC to start recording.

The recording indicator lights up red in the display window.

Recording indicator

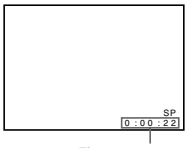
To stop recording

Press ■ STOP.

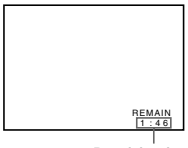
continued

To check the remaining time

Press DISPLAY. With the display on, press COUNTER/REMAIN to check the remaining time. Each time you press COUNTER/REMAIN, the time counter and the remaining time appear alternately.



Time counter



Remaining time

In order to get an accurate remaining time indication, be sure TAPE SELECT in the USER SET menu is set according to the tape type you use (see page 44).

To watch another TV programme while recording

1 Press TV/VIDEO to turn off the VCR indicator in the display window.

2 Select another programme position on the TV.

To save a recording

To prevent accidental erasure, break off the safety tab as illustrated. To record on the same tape again, cover the tab hole with adhesive tape.

Safety tab

Tips

- To select a programme position, you can use the programme number buttons on the remote commander. For two-digit numbers, press the -/-- (ten’s digit) button followed by the programme number buttons.
- If you connect additional equipment to an input connector, you can select the input signal using the INPUT SELECT or PROG +/– buttons.
- The DISPLAY information appears on the TV screen indicating information about the tape, but the information won’t be recorded on the tape.
- If you don’t want to watch TV while recording, you can turn off the TV.
- The remaining tape length may not be indicated accurately for short tapes such as E-20 or E-30, or tapes recorded in the LP mode.

Notes

- The DISPLAY information does not appear during pause mode and the various speeds of playback mode. However, it will appear during normal playback.
- If a tape has portions recorded in both PAL and NTSC systems, the time counter reading will not be correct. This discrepancy is due to the difference between the counting cycles of the two video systems.
- When you insert a non-standard commercially available tape, the remaining time may not be correct.
- The remaining time is intended for rough measurement only.
- About 30 seconds after the tape begins playback, the tape remaining time will be displayed.

Recording TV programmes using the VIDEO Plus+ system

The VIDEO Plus+ system is the feature that simplifies programming the VCR to make timer recordings. Just enter the PlusCode number listed in the TV programme guide. The date, times, and programme position of that programme are set automatically. You can preset a total of six programmes, including settings made with other timer methods.

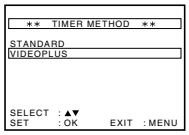
Before you start…

- Check that the VCR clock is set to the correct time and date.
- Insert a tape with its safety tab in place. Make sure the tape is longer than the total recording time.
- Turn on your TV and set it to the video channel.
- Set TIMER METHOD to VIDEOPLUS or VARIABLE in the USER SET menu (see page 45).
- Refer to "Index to parts and controls" for button locations.

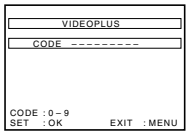
1

Press ◴ TIMER.

- When you set TIMER METHOD to VARIABLE:
  The TIMER METHOD menu appears on the TV screen. Press ↑/↓ to select VIDEOPLUS, then press OK.



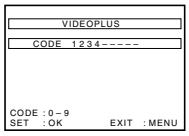
- When you set TIMER METHOD to VIDEOPLUS:
  The VIDEOPLUS menu appears on the TV screen.



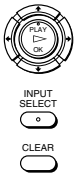
2

Press the programme number buttons to enter the PlusCode number.

If you make a mistake, press CLEAR and re-enter the correct number.

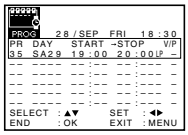


3



Press OK.

The programme position, date, start and stop times, tape speed, and VPS/PDC setting appear on the TV screen.



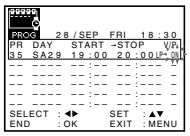
- If "– –" appears in the "PR" (programme) column (this may happen for local broadcasts), you have to set the appropriate programme position manually.
  Press ↑/↓ to select the desired programme position.
  To record from another source connected to the input connector, press INPUT SELECT to display the connected line in the "PR" position.
  You will only have to do this operation once for the referred channel. The VCR will then store your setting.

If the information is incorrect, press CLEAR to cancel the setting.

4

If you want to change the date, tape speed, and the VPS/PDC setting:

1 Press ←/→ to select the item you want to change.
2 Press ↑/↓ to reset it.



- To record the same programme every day or the same day every week, see "Daily/weekly recording" on page 34.
- To use the VPS/PDC function, set V/P to ON. For details about the VPS/PDC function, see "Timer recording with VPS/PDC signals" on page 34.
- To use the Auto Tape Speed function, press ↓ to display "AUTO" in the blank positions next to the "V/P" row. For details, see "To use the Auto Tape Speed function" on page 34.

5

Press MENU to exit the menu.

6

Press I/⏻ to turn off the VCR.

The ◴ indicator appears in the display window and the VCR stands by for recording.

To record from another source, leave the connected equipment switched on.

continued

To stop recording

To stop the VCR while recording, press ■ STOP.

Daily/weekly recording

In step 4 above, press ↓ to select the recording pattern. Each time you press ↓, the indication changes as shown below. Press ↑ to change the indication in reverse order.

today → DLY (Monday to Sunday) → W-SAT (every Saturday) ..... → W-SUN (every Sunday) → 1 month later → (dates count down) → today

Timer recording with VPS/PDC signals

Some broadcast systems transmit VPS (Video Programme System) or PDC (Programme Delivery Control) signals with their TV programmes. These signals ensure that your timer recordings are made regardless of broadcast delays, early starts, or broadcast interruptions.

To use the VPS/PDC function, set V/P to ON in step 4 above. You can also use the VPS/PDC function for a source connected to the input connector.

To use the Auto Tape Speed function

In step 4 above, press ↓ to select AUTO. When you are recording a programme in the SP mode and the remaining tape length becomes shorter than the recording time, the recording tape speed is automatically changed to the LP mode. Note that some noise will appear on the picture when the tape speed is changed. To operate this function correctly, the "TAPE SELECT" setting in the USER SET menu must be accurate. (page 44)

To use the VCR after setting the timer

To use the VCR before a recording begins, just press I/⏻. The ◴ indicator turns off and the VCR switches on. Remember to press I/⏻ to reset the VCR to recording standby after using the VCR.

You can also do the following tasks while the VCR is recording:

- Reset the counter (page 27).
- Display tape information on the TV screen (page 30).
- Check the timer settings (page 41).
- Watch another TV programme (page 30).

Tips

- You can set the extended time for the VIDEO Plus+ setting by 10, 20, 30, or 60 minutes. Set VIDEOPLUS+ EXTEND in the EASY OPERATION menu to the desired extended time (page 45).
- To check, change, or cancel the programme setting, see "Checking/changing/cancelling timer settings" (page 41).
- To set the tape speed, you can also use the SP/LP button.

Notes

- If the VPS/PDC signal is too weak or the broadcasting station failed to transmit VPS/PDC signals, the VCR will start recording at the set time without using the VPS/PDC function.
- The ◴ and ⊙⊙ indicators flash in the display window when you press I/⏻ with no tape inserted.
- When you set TIMER METHOD to STANDARD in the USER SET menu, the VIDEOPLUS menu does not appear on the TV screen. Select VIDEOPLUS or VARIABLE.

Setting the timer manually

If VIDEO Plus+ is not available in your area, follow the instructions below to set the timer to record programmes.

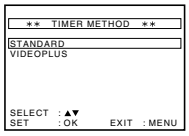
Before you start...

- Check that the VCR clock is set to the correct time and date.
- Insert a tape with its safety tab in place. Make sure the tape is longer than the total recording time.
- Turn on your TV and set it to the video channel.
- Set TIMER METHOD to STANDARD or VARIABLE in the USER SET menu (see page 45).
- Refer to "Index to parts and controls" for button locations.

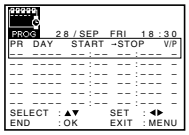
1

Press ◴ TIMER.

- When you set TIMER METHOD to VARIABLE:
  The TIMER METHOD menu appears on the TV screen. Press ↑/↓ to select STANDARD, then press OK.



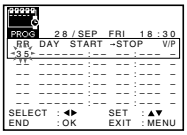
- When you set TIMER METHOD to STANDARD:
  The TIMER PROGRAMMING menu appears on the TV screen.



2

Set the programme position, date, start and stop times, tape speed, and VPS/PDC function:

1 Press ➡ to select each item in turn.
2 Press ↑/↓ to set each item.
To correct a setting, press ⬅ to return to that setting and reset.



- To record the same programme every day or the same day every week, see "Daily/weekly recording" on page 37.
- To use the VPS/PDC function, set V/P to ON. For details about the VPS/PDC function, see "Timer recording with VPS/PDC signals" on page 34.
- To record from another source connected to the input connector, press INPUT SELECT to display the connected line in the "PR" position.
- To use the Auto Tape Speed function, press ↓ to display "AUTO" in the blank positions next to the "V/P" row. For details, see "To use the Auto Tape Speed function" on page 34.

3

Press MENU to exit the menu.

4

Press I/⏻ to turn off the VCR.

The ◴ indicator appears in the display window and the VCR stands by for recording.

To record from another, leave the connected equipment switched on.

To stop recording

To stop the VCR while recording, press ■ STOP.

Daily/weekly recording

In step 2 above, press ↓ to select the recording pattern. Each time you press ↓, the indication changes as shown below. Press ↑ to change the indication in reverse order.

today → DLY (Monday to Sunday) → W-SAT (every Saturday) ..... → W-SUN (every Sunday) → 1 month later → (dates count down) → today

continued

Tips

- Even if you set TIMER METHOD to VIDEOPLUS in the USER SET menu, you can set the timer manually. Press MENU to select TIMER PROGRAMMING, then go to step 2.
- To check, change, or cancel the programme setting, see "Checking/changing/cancelling timer settings" (page 41).
- To set the tape speed, you can also use the SP/LP button.

Notes

- When setting the timer with VPS/PDC signals, enter the start and stop times exactly as indicated in the TV programme guide. Otherwise, the VPS/PDC function won't work.
- If the VPS/PDC signal is too weak or the broadcasting station failed to transmit VPS/PDC signals, the VCR will start recording at the set time without using the VPS/PDC function.
- The ◴ and ⊙⊙ indicators flash in the display window when you press I/⏻ with no tape inserted.

Playing/searching at various speeds

Before you start...

- Refer to "Index to parts and controls" for button locations.

Playback options	Operation
View the picture during fast-forward or rewind	During fast-forward, hold down ▶▶ FF. During rewind, hold down ◀◀ REW.
Play at high speed	• During playback, press ▶▶ FF or ◀◀ REW. • During playback, hold down ▶▶ FF or ◀◀ REW. When you release the button, normal playback resumes.
Play at twice the normal speed	During playback, press ×2.
Play in slow motion	During playback, press ▮► SLOW.
Play frame by frame	During pause, press ▶▶ FF.

To resume normal playback

Press ▷ PLAY.

Tip

- Adjust the picture using the PROGRAM +/– buttons on the VCR if:
  – Streaks appear while playing in slow motion.
  – Bands appear at the top or bottom while pausing.
  – The picture shakes while pausing.

Notes

- The sound is muted during these operations.
- In the LP mode, noise may appear or there may be no colour.
- If the playback mode mark doesn't appear on the TV screen, press DISPLAY.
- The picture may show noise when playing at high speed in reverse.
- Tapes recorded in the LP mode on other VCRs can be played back on this VCR but the picture quality cannot be guaranteed.

Setting the recording duration time

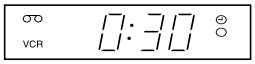
After you have started recording in the normal way, you can have the VCR stop recording automatically after a specified duration.

Before you start...

- Refer to “Index to parts and controls” for button locations.

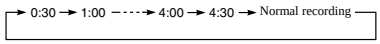
1 While recording, press ● REC.

The ◴ indicator appears in the display window.



2 Press ● REC repeatedly to set the duration time.

Each press advances the time in increments of 30 minutes.



The tape counter decreases minute by minute to 0:00, then the VCR stops recording and turns off automatically.

To extend the duration

Press ● REC repeatedly to set a new duration time.

To cancel the duration

Press ● REC repeatedly until the ◴ indicator disappears and the VCR returns to the normal recording mode.

To stop recording

To stop the VCR while recording, press ■ STOP.

Note

- You cannot display the current tape time in the display window when setting the recording duration time.

Checking/changing/cancelling timer settings

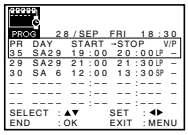
Before you start…

- Turn on your TV and set it to the video channel.
- Refer to “Index to parts and controls” for button locations.

1 Press I/⏻ to turn on the VCR.

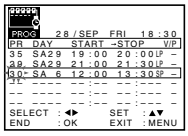
2 Press MENU, then press ↑/↓ to highlight TIMER PROGRAMMING and press OK.

- If you want to change or cancel a setting, go on to the next step.
- If you do not need to change or cancel the settings, press MENU, then turn off the VCR to return to recording standby.


PROG
28/SEP FRI 18:30
PR DAY START STOP V/P
35 SA29 19:00 20:00 LP –
29 SA29 21:00 21:30 LP –
30 SA 6 12:00 13:30 SP –
SELECT :▲▼ SET :◆▶
END :OK EXIT :MENU

3 Press ↑/↓ to select the setting you want to change or cancel, then press →.

The PR number on the selected row flashes.


PROG
28/SEP FRI 18:30
PR DAY START STOP V/P
35 SA29 19:00 20:00 LP –
29 SA29 21:00 21:30 LP –
30 SA 6 12:00 13:30 SP –
SELECT :◆▶ SET :▲▼
END :OK EXIT :MENU

4 • To change the setting, press ←/→ to select the item you want to change, then press ↑/↓ to reset it.
• To cancel the setting, press CLEAR.

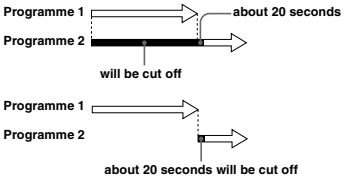
5 Press MENU to exit the menu.

If any settings remain, turn off the VCR to return to recording standby.

continued

When the timer settings overlap

The programme that starts first has priority and the second programme starts recording only after the first programme has finished. If the programmes start at the same time, the programme listed first in the menu has priority.

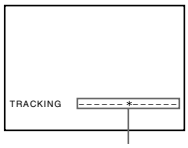


Adjusting the picture

Adjusting the tracking

Although the VCR automatically adjusts the tracking when playing a tape, distortion may occur if the recording is in poor condition. In this case, manually adjust the tracking.

During playback, press PROGRAM +/– on the VCR to display the tracking meter. The distortion should disappear as you press one of the two buttons. To resume automatic tracking adjustments, eject the tape and re-insert it.

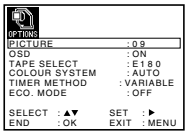


Adjusting the picture sharpness

You can manually adjust the sharpness of the picture.

1 During playback, press MENU, then press ↑/↓/←/→ to highlight USER SET and press OK.

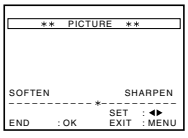
2 Press ↑/↓ to highlight PICTURE, then press →.



3 Press ←/→ to adjust the sharpness.

To soften the picture, press ←.

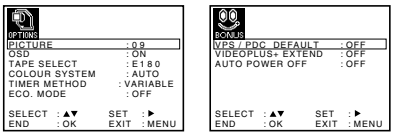
To sharpen the picture, press →.



4 Press MENU to exit the menu.

Changing menu options

1 Press MENU, then select USER SET or EASY OPERATION and press OK.


OPTIONS
PICTURE : 0 9
OSD : ON
TAPE SELECT : E 1 8 0
COLOUR SYSTEM : AUTO
TIMER METHOD : VARIABLE
ECO. MODE : OFF
SELECT : ▲▼ SET : ▶
END : OK EXIT : MENU
BONUS
VPS / PDC DEFAULT : OFF
VIDEOPLUS+ EXTEND : OFF
AUTO POWER OFF : OFF
SELECT : ▲▼ SET : ▶
END : OK EXIT : MENU

2 Press ↑/↓ to select the option.

3 Press → to change the setting, then press OK.

4 Press MENU to return to the original screen.

Menu choices

Initial settings are indicated in bold print.

USER SET

Menu option	Set this option to
PICTURE	Adjusting the sharpness of the picture by pressing ←/→ buttons. Press ← to adjust the picture getting softness. Press → to adjust the picture getting sharpness.
OSD	• **ON** to display the menu on the TV screen. • OFF to disappear the menu from the TV screen.
TAPE SELECT	• **E180** to use an E-180 or shorter type tape. • E240 to use an E-240 type tape. • E260 to use an E-260 type tape. • E300 to use an E-300 type tape.
COLOUR SYSTEM	• **AUTO** to select the colour system automatically. • PAL to use the tape recorded in the PAL colour system. • B/W to use the tape recorded in black and white.

Menu option	Set this option to
TIMER METHOD	• **VARIABLE** to display the TIMER METHOD menu for selecting STANDARD or VIDEOPLUS when pressing the ⏲ TIMER button. • STANDARD to display the TIMER menu when pressing the ⏲ TIMER button. • VIDEOPLUS to display the VIDEOPLUS menu when pressing the ⏲ TIMER button. For details, see page 32 and 36.
ECO. MODE	• ON to turn off the indicators in the display window to conserve the VCR's power. • **OFF** to turn on the indicators in the display window while the VCR is standing by.

EASY OPERATION

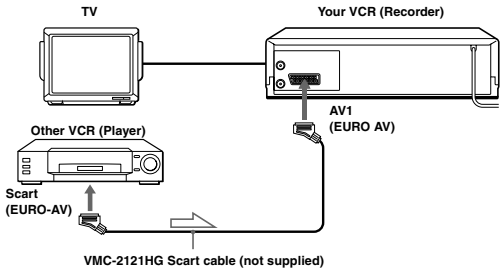
Menu option	Set this option to
VPS/PDC DEFAULT	• **OFF** to deactivate the VPS/PDC function. • ON to activate it.
VIDEOPLUS+ EXTEND	• **OFF** to deactivate the VIDEOPLUS+ Extend function. • 10/20/30/60 (minutes) to extend the time of the VIDEO Plus+ setting by the selected amount of time.
AUTO POWER OFF	• **OFF** to deactivate the Auto Power Off function. • 2HOUR/3HOUR to turn the VCR off automatically if no signal is received and you do not press any of the buttons during this time.

Editing with another VCR

How to connect to record on this VCR

Connect the line outputs of the other VCR to the input connector of this VCR as shown below.

Example



: Signal flow

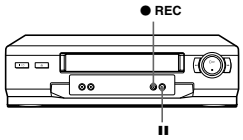
Note

• If the other VCR does not have a Scart (EURO-AV) connector, use the VMC-2106HG cable instead and connect the cable to the line out jacks of the other VCR.

Operation (when recording on this VCR)

Before you start editing

• Turn on your TV and set it to the video channel.
• Press INPUT SELECT to display the connected line in the display window.
• Press SP/LP to select the tape speed, SP or LP.



1 Insert a source tape with its safety tab removed into the other (playback) VCR. Search for the point to start playback and set it to playback pause.

2 Insert a tape with its safety tab in place into this (recording) VCR. Search for the point to start recording and press ❚❚ (pause).

3 Press ● REC on this VCR to set it to recording pause.

4 To start editing, press the ❚❚ (pause) buttons on both VCRs at the same time.

To stop editing

Press the ■ (stop) buttons on both VCRs.

Tip

• To cut out unwanted scenes while editing, press ❚❚ (pause) on this VCR when an unwanted scene begins. When it ends, press ❚❚ (pause) again to resume recording.

Troubleshooting

If you have any questions or problems not covered below, please consult your nearest Sony service facility.

	Symptom	Remedy
Power	The I/⏻ (on/standby) switch does not function.	• Connect the mains lead to the mains securely.
	The power is turned on but the VCR does not operate.	• Moisture condensation has occurred. Turn the power off, unplug the mains lead and leave the VCR to dry for over three hours.
Clock	The clock has stopped and "– –:– –" appears in the display window.	• The clock stops if the VCR is disconnected from the mains for more than one hour. Reset the clock (and timer).
Playback	The playback picture does not appear on the TV screen.	• Make sure the TV is set to the video channel. If you are using a monitor, set it to video input. • If the VCR is connected to the TV with the Scart cable, make sure the VCR indicator is lit in the display window. Use the ⇆ TV/VIDEO button on the remote commander to light up the VCR indicator.
	The picture is not clear.	• Existing broadcasts may interfere with the VCR. Reset the RF channel output of your VCR. • Adjust the tracking with the PROGRAM +/– buttons on the VCR. • The video heads are dirty (see the last page of Troubleshooting). Clean the video heads using the Sony T-25CLD, E-25CLDR, or T-25CLW video head cleaning cassette. If these cleaning cassettes are not available in your area, have the heads cleaned at your nearest Sony service facility (a standard service charge will be required). Do not use a commercially available liquid type cleaning cassette other than Sony's, as it may damage the video heads. • The video heads may have to be replaced. Consult your local Sony service facility for more information.
	The picture rolls vertically during picture search.	• Adjust the vertical hold control on the TV or monitor.
	The picture has no sound.	• The tape is defective.

	Symptom	Remedy
Recording	No TV programme appears on the TV screen.	• Make sure the TV is set to the video channel. If you are using a monitor, set it to video input. • Existing broadcasts may interfere with the VCR. Reset the RF channel output of your VCR. • Select the correct source with the INPUT SELECT button. Select a programme position when recording TV programmes; select a line input when recording from other equipment.
	TV reception is poor.	• Make sure the aerial cable is connected securely. • Adjust the TV aerial.
	The tape starts playing as soon as it is inserted.	• The safety tab has been removed. To record on this tape, cover the tab hole (see page 30).
	The tape is ejected when you press ● REC.	• The safety tab has been removed. To record on this tape, cover the tab hole (see page 30).
	Nothing happens when you press ● REC.	• Make sure the tape is not at its end.
Timer recording	The timer does not operate.	• Check that the clock is set. • Make sure a tape has been inserted. • Check that the safety tab has not been removed. • Make sure the tape is not at its end. • Make sure a programme has been set for timer recording. • Make sure your timer settings are past the current time. • The clock stops if the VCR is disconnected from the mains for more than one hour. Reset the clock and timer. • Turn the power off and unplug the mains lead.
	The VIDEOPLUS menu or the TIMER menu does not appear.	• Check that TIMER METHOD in the USER SET menu is set correctly (see page 45).
	The VPS/PDC function does not operate properly.	• Check that the clock and the date are set correctly. • Check that the VPS/PDC time you set is the correct one (there might be a mistake in the TV programme guide). If the broadcast you wanted to record did not send the good VPS/PDC information, the VCR will not start recording. • If the reception is poor, the VPS/PDC signal might be altered and the VCR might not start recording.

continued

	Symptom	Remedy
Others	A tape cannot be inserted.	• Check that a tape isn't already in the tape compartment.
	The remote commander does not function.	• Make sure you are pointing the remote commander at the remote sensor on the VCR. • Replace all the batteries in the remote commander with new ones if they are weak. • Make sure the TV / VIDEO remote control switch is set correctly.
	The tracking meter does not appear on the TV screen.	• The recording condition of the tape is very poor and tracking cannot be adjusted.
	The display window becomes dim.	• The display window automatically becomes dim when the VCR is in standby or timer recording mode.
	The VCR needs to be cleaned.	• Clean the cabinet, panel and controls with a dry, soft cloth, or a soft cloth slightly moistened with a mild detergent solution. Do not use any type of solvent, such as alcohol or benzine.

Symptoms caused by contaminated video heads

• Normal picture **• Rough picture** **• Unclear picture** **• No picture (or black & white screen appears)**

initial contamination → **terminal**

SECTION 2
DISASSEMBLY

2-1. Cabinet Top

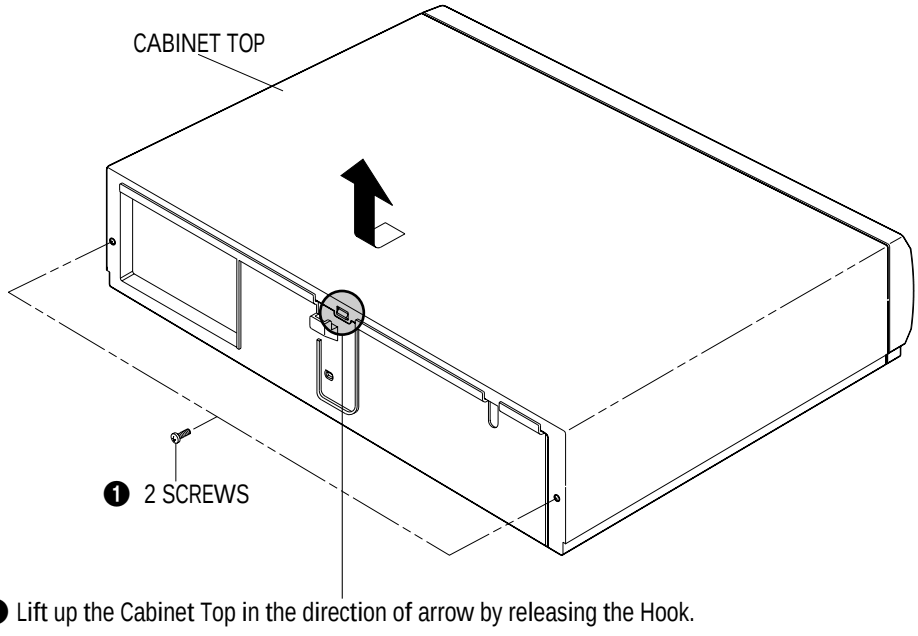


Fig. 2-1 Cabinet Top

2-2. Cover Bottom

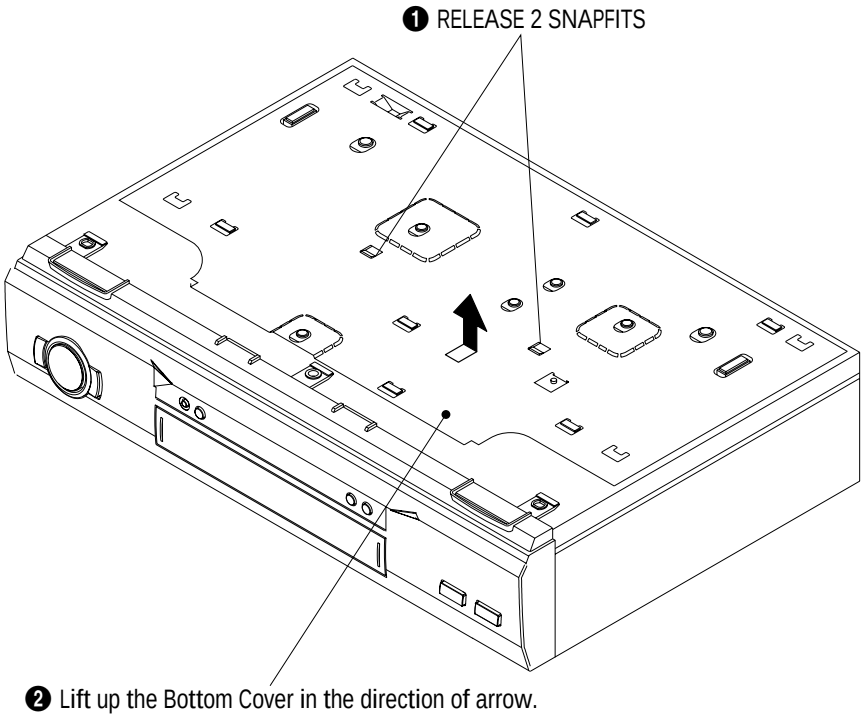


Fig. 2-2 Cover Bottom

2-3. Ass'y-Panel Front

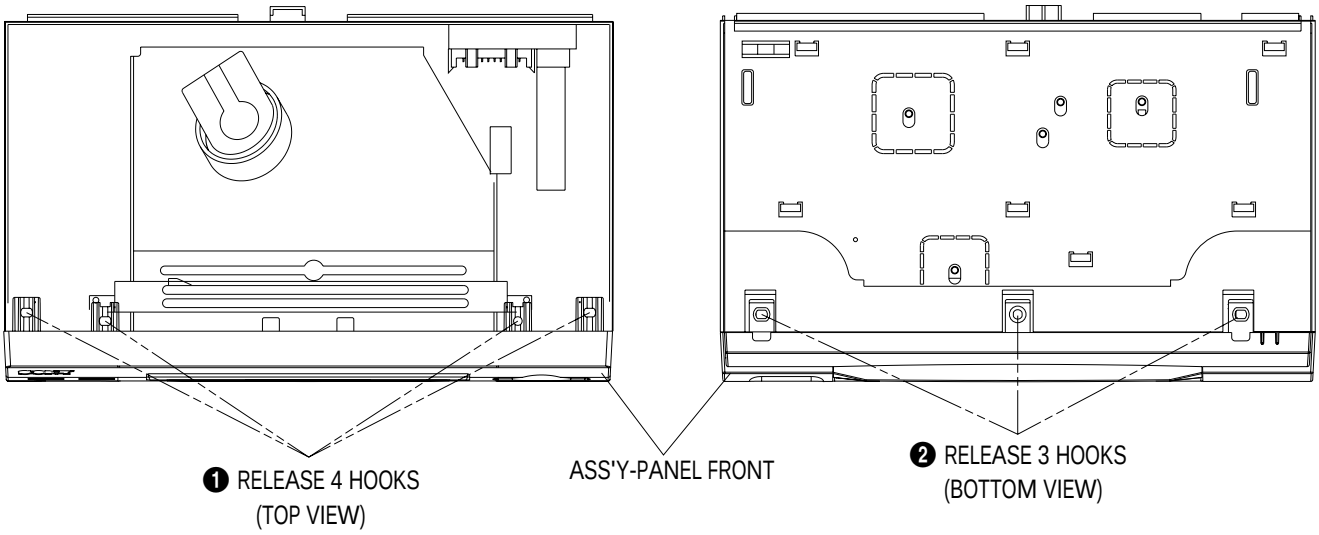


Fig. 2-3 Ass'y-Panel Front

2-4. Ass'y MAIN-PCB, DECK

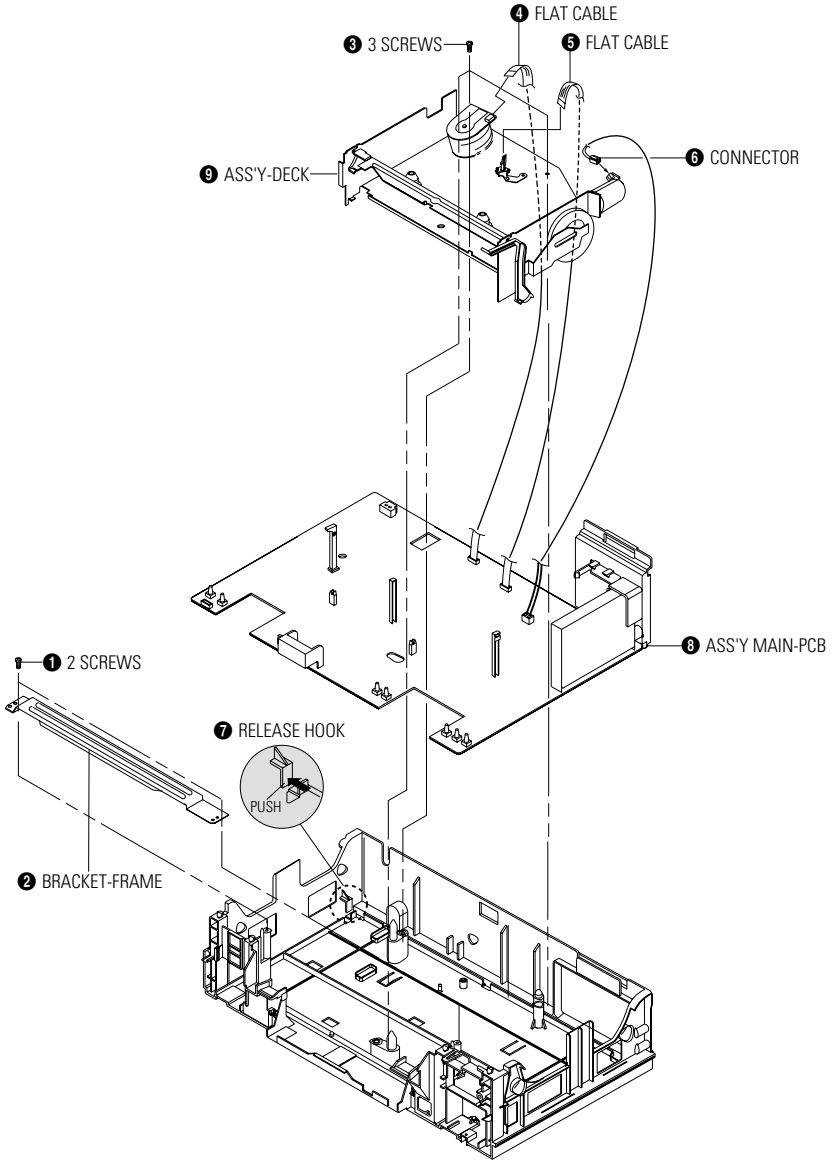
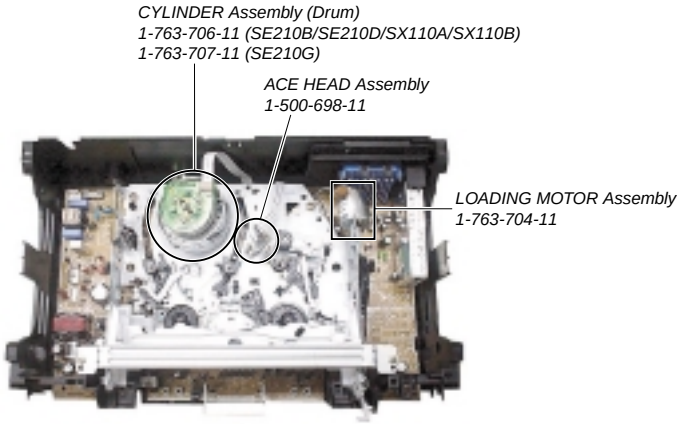


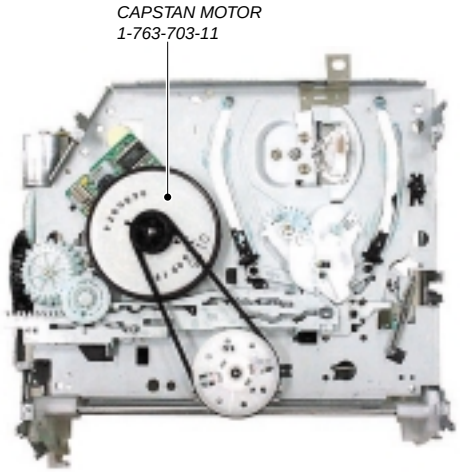
Fig. 2-4 Ass'y Main-PCB, Deck

2-5. Internal Views

— Top View —



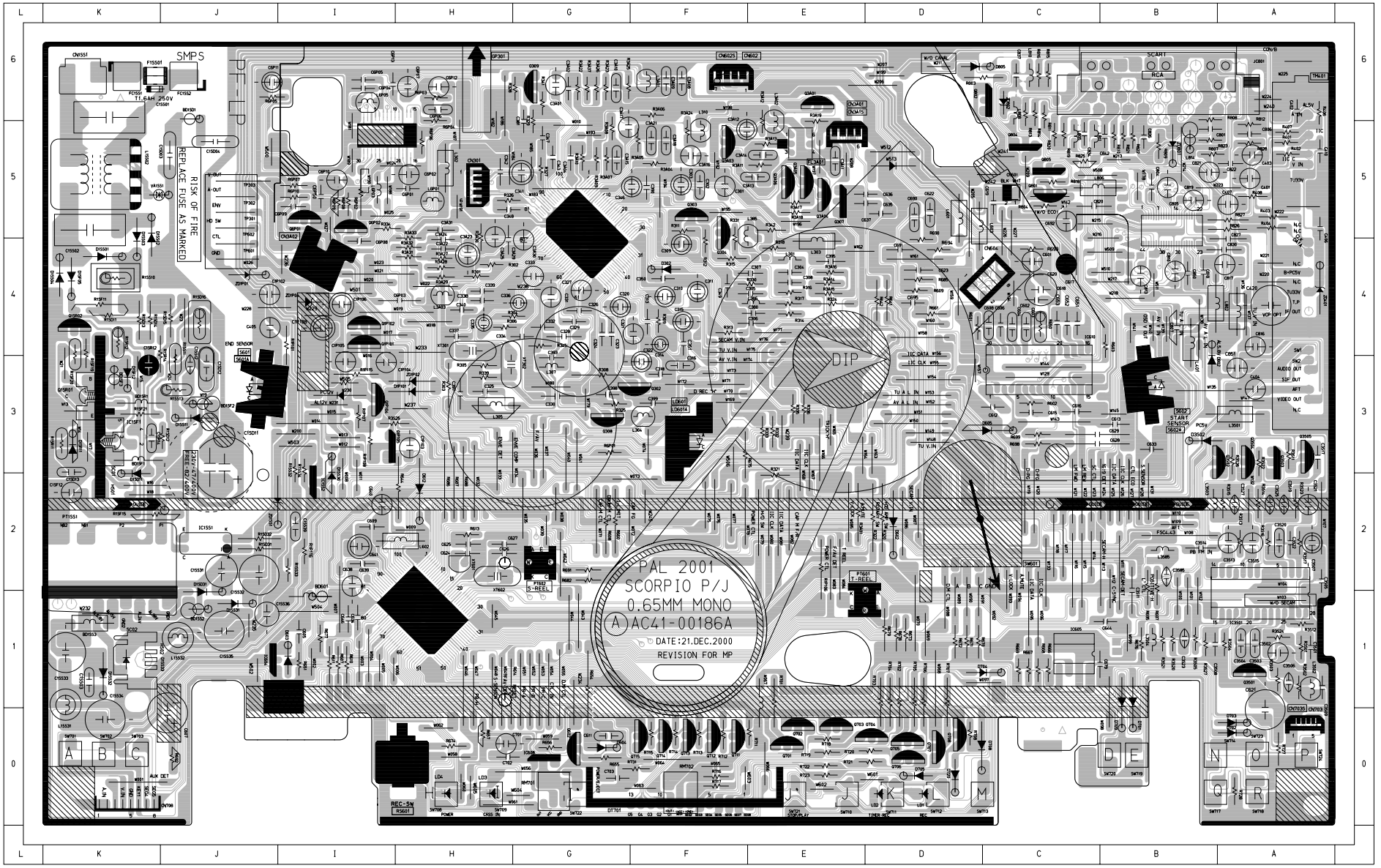
— Bottom View —



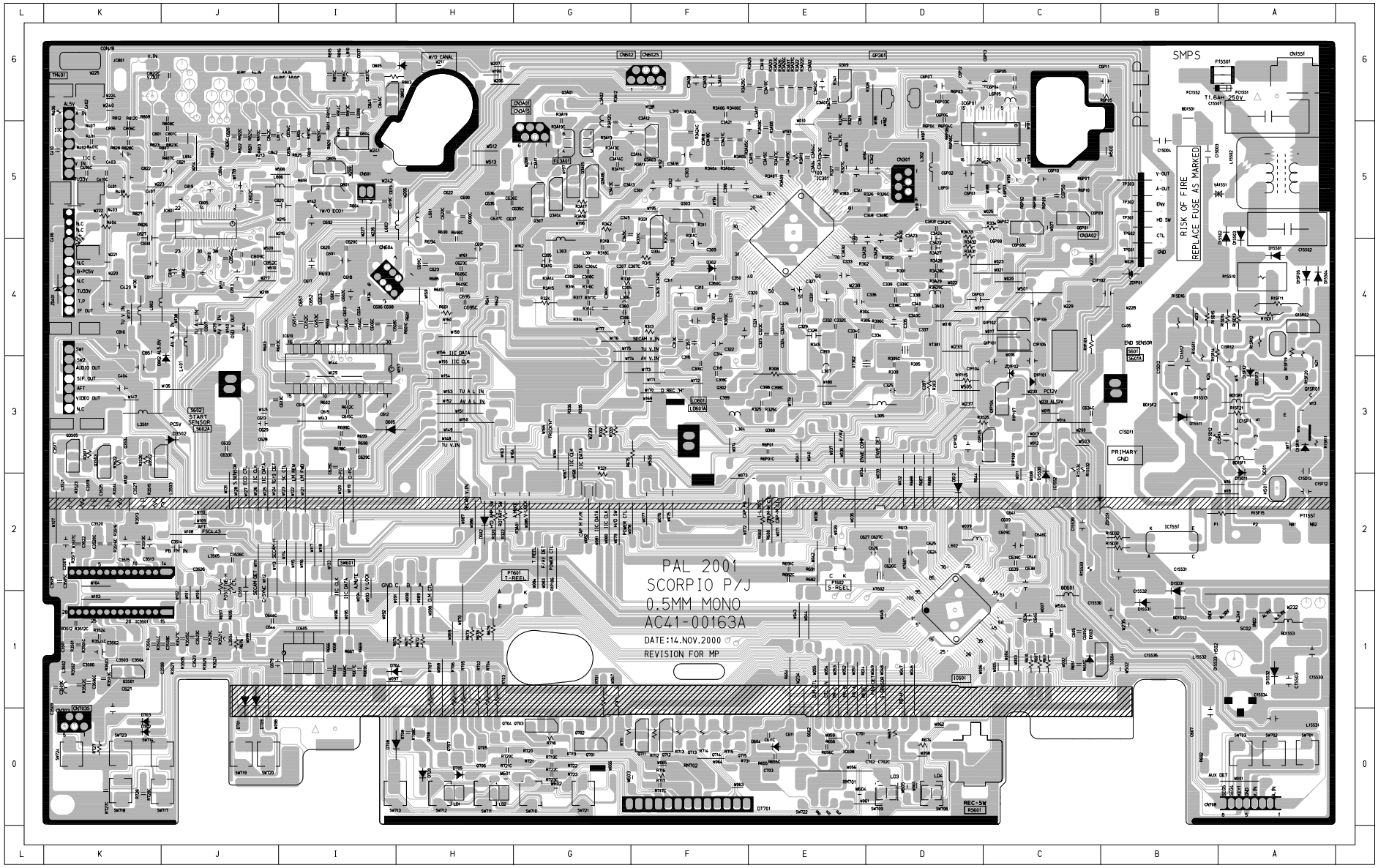
SECTION 3
PRINTED WIRING BOARDS

3-1. Main PCB

COMPONENT SIDE

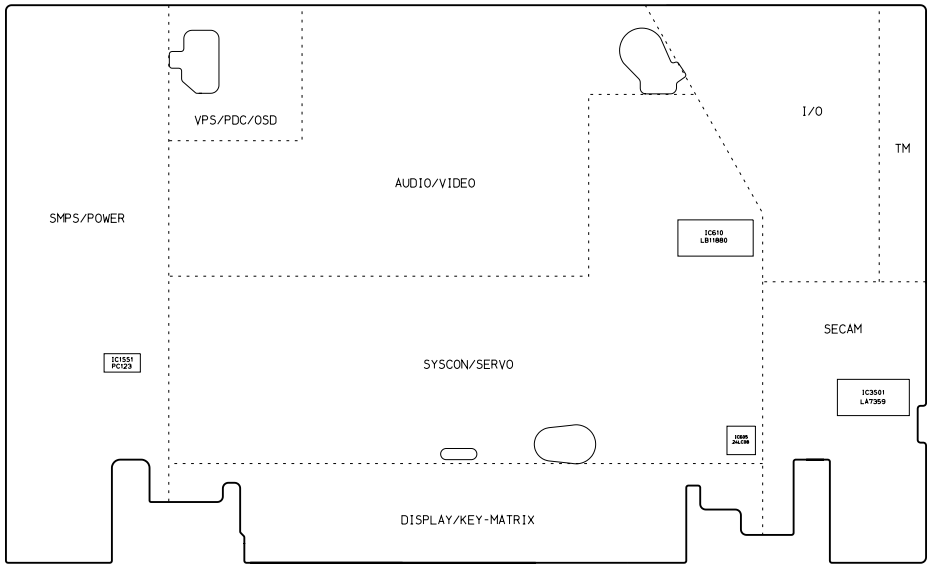


CONDUCTOR SIDE

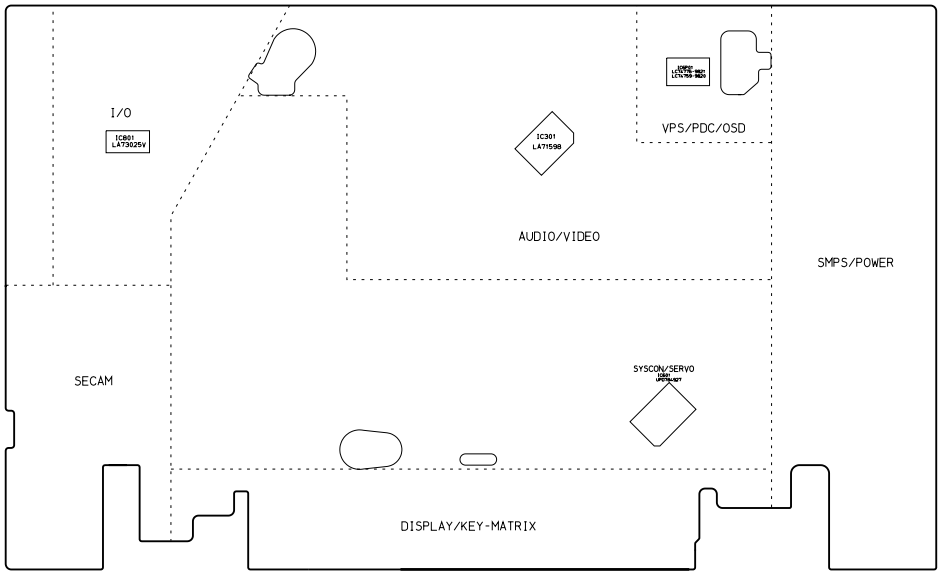


SECTION 4
SCHEMATIC DIAGRAMS

Block Identification of Main PCB

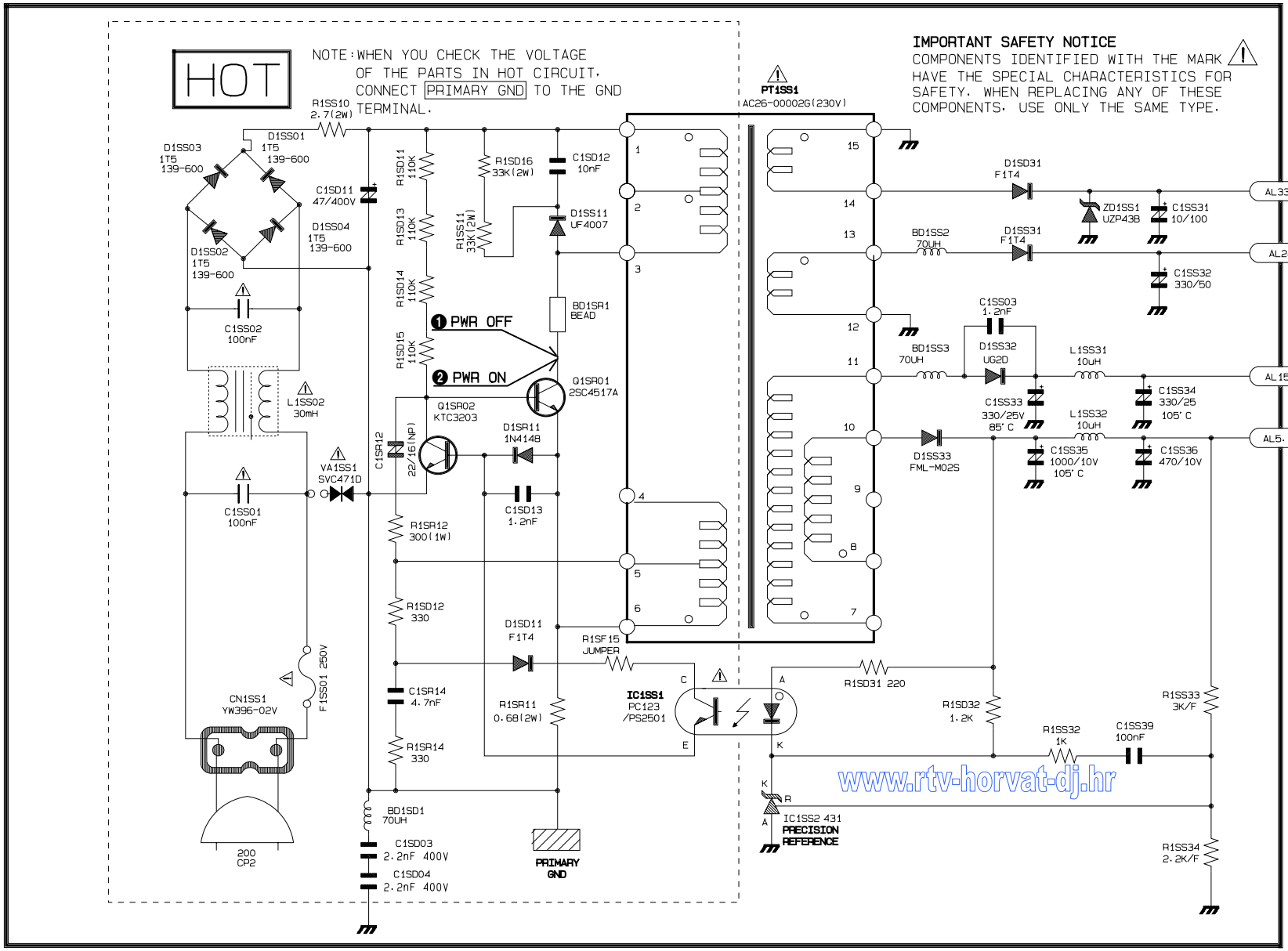


Component Side

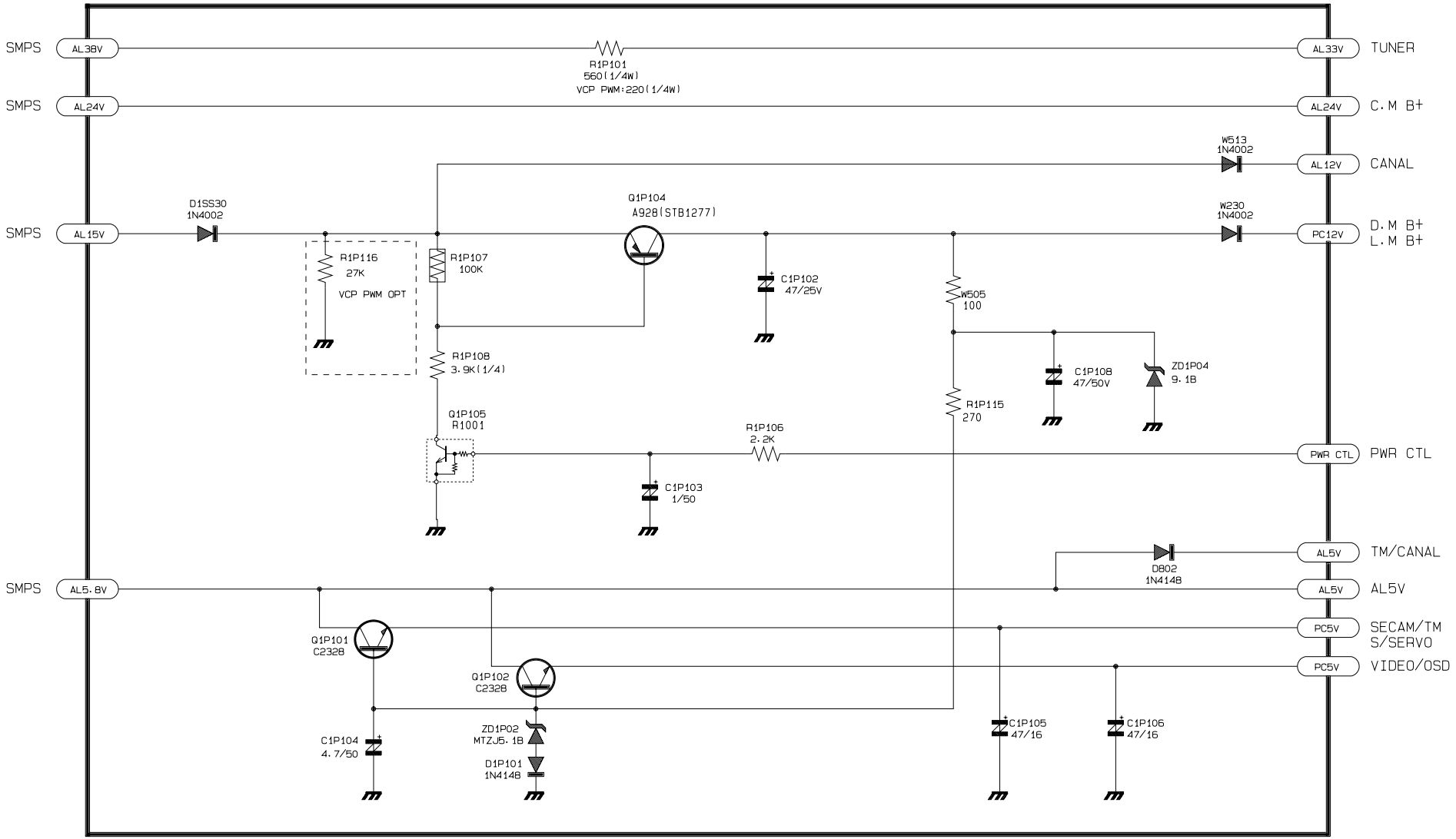


Conductor Side

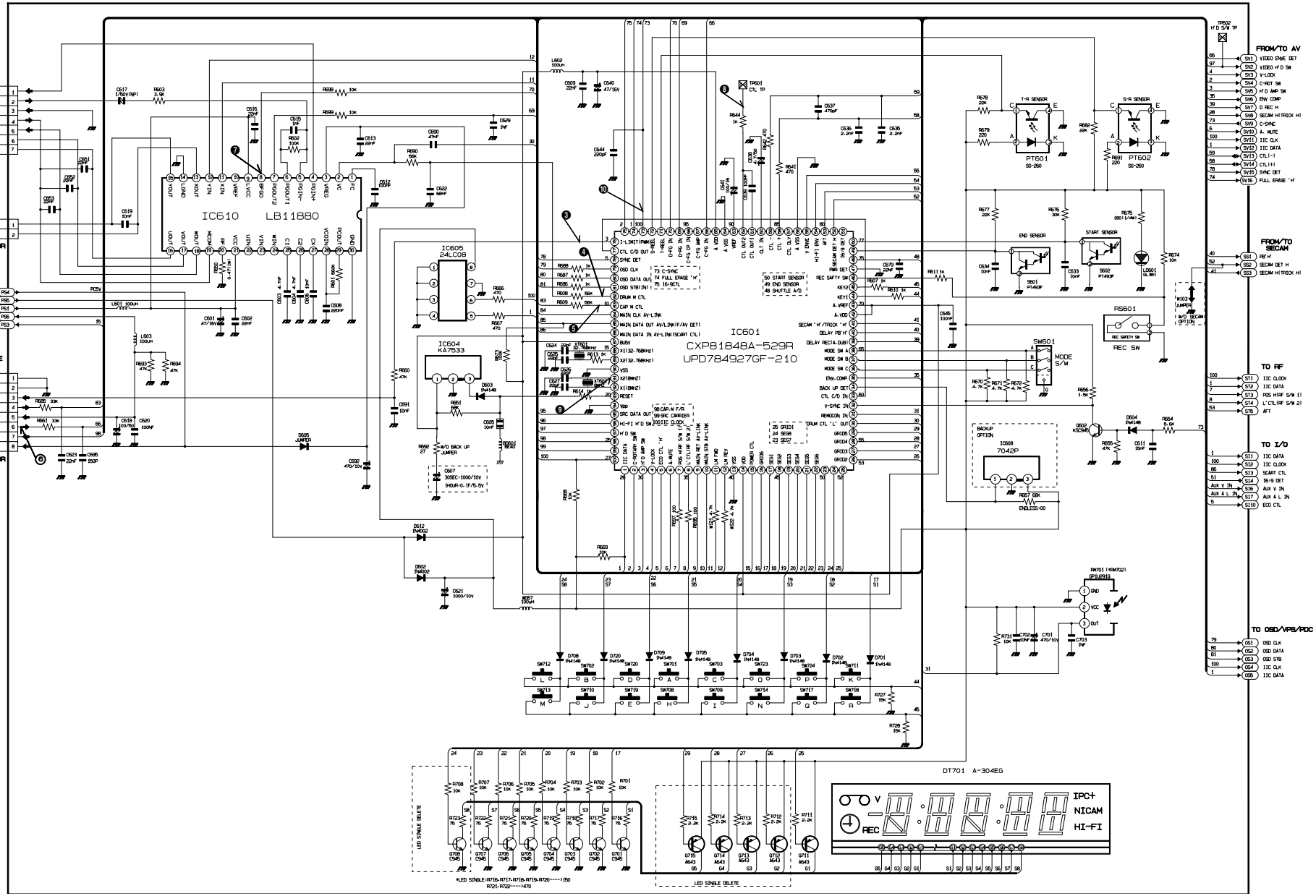
4-1. S.M.P.S.


HOT
NOTE: WHEN YOU CHECK THE VOLTAGE OF THE PARTS IN HOT CIRCUIT, CONNECT PRIMARY GND TO THE GND TERMINAL.
IMPORTANT SAFETY NOTICE
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.
PT1SS1
AC26-00002G(230V)
R1SS10 2.7(2W)
D1SS01 1T5 139-600
D1SS02 1T5 139-600
D1SS03 1T5 139-600
D1SS04 1T5 139-600
C1SD11 47/400V
C1SS02 100nF
C1SS01 100nF
L1SS02 30mH
VA1SS1 SVC471D
CN1SS1 YW396-02V
F1SS01 250V
200 CP2
R1SD11 110K
R1SD13 110K
R1SD14 110K
R1SD15 110K
R1SD16 33K(2W)
R1SS11 33K(2W)
C1SD12 10nF
D1SS11 UF4007
BD1SR1 BEAD
❶ PWR OFF
❷ PWR ON
Q1SR01 2SC4517A
Q1SR02 KTC3203
C1SR12 22/16(NP)
D1SR11 1N4148
C1SD13 1.2nF
R1SR12 300(1W)
R1SD12 330
D1SD11 F1T4
R1SF15 JUMPER
C1SR14 4.7nF
R1SR14 330
R1SR11 0.68(2W)
BD1SD1 70UH
C1SD03 2.2nF 400V
C1SD04 2.2nF 400V
PRIMARY GND
IC1SS1 PC123 /PS2501
R1SD31 220
R1SD32 1.2K
R1SS32 1K
C1SS39 100nF
R1SS33 3K/F
R1SS34 2.2K/F
IC1SS2 431 PRECISION REFERENCE
D1SD31 F1T4
ZD1SS1 UZP43B
C1SS31 10/100
AL33V
POWER DRIVE
BD1SS2 70UH
D1SS31 F1T4
C1SS32 330/50
AL24V
POWER DRIVE
C1SS03 1.2nF
BD1SS3 70UH
D1SS32 UG2D
L1SS31 10uH
C1SS33 330/25V 85' C
L1SS32 10uH
C1SS34 330/25 105' C
AL15V
POWER DRIVE
D1SS33 FML-M02S
C1SS35 1000/10V 105' C
C1SS36 470/10V
AL5.8V
POWER DRIVE
www.rtv-horvat-dj.hr

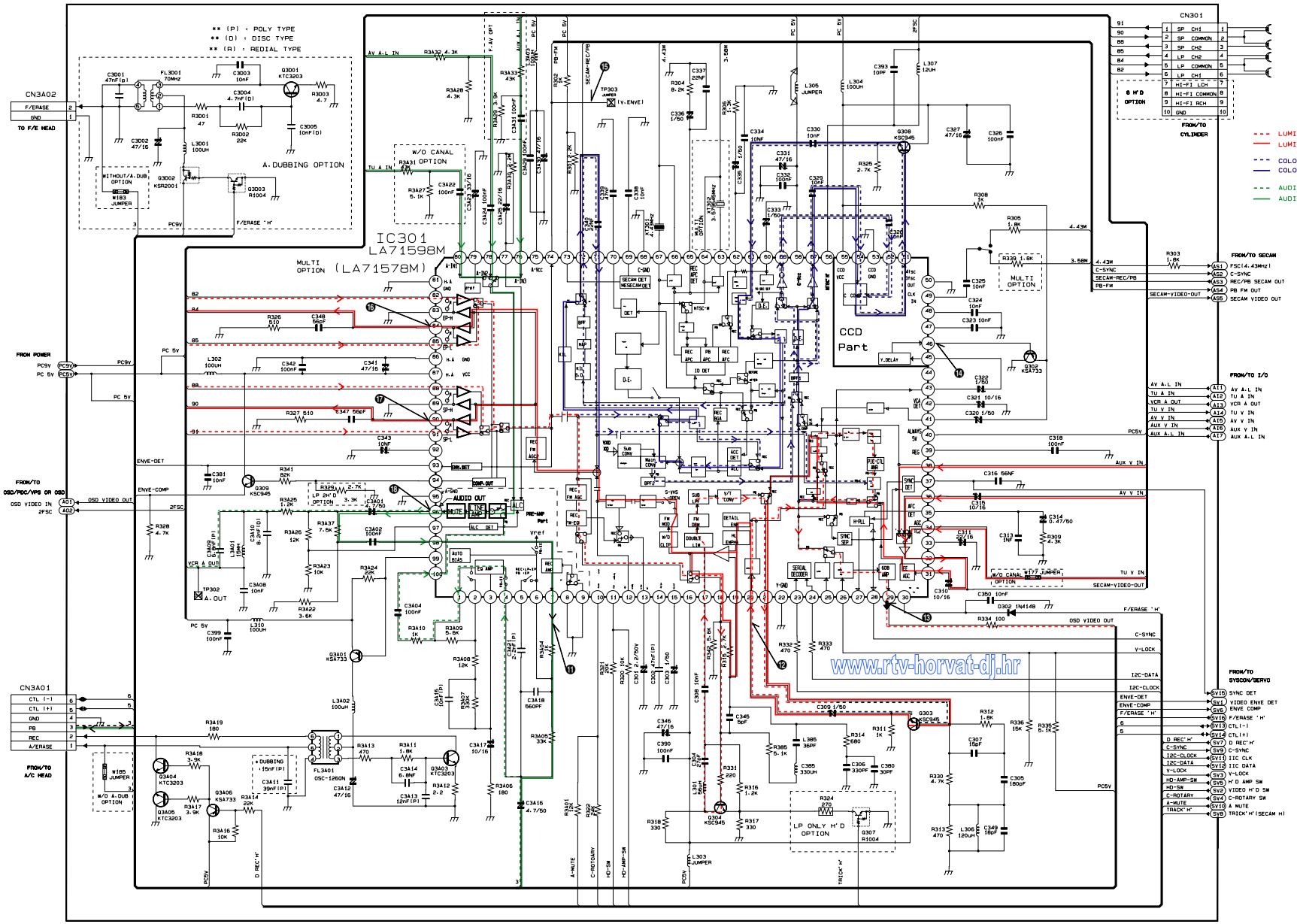
4-2. Power


SMPS
AL38V
R1P101
560(1/4W)
VCP PWM:220(1/4W)
AL33V
TUNER
SMPS
AL24V
AL24V
C.M B+
W513
1N4002
AL12V
CANAL
SMPS
AL15V
D1SS30
1N4002
R1P116
27K
VCP PWM OPT
R1P107
100K
Q1P104
A928(STB1277)
C1P102
47/25V
W505
100
W230
1N4002
PC12V
D.M B+
L.M B+
R1P108
3.9K(1/4)
C1P108
47/50V
ZD1P04
9.1B
R1P115
270
Q1P105
R1001
R1P106
2.2K
PWR CTL
PWR CTL
C1P103
1/50
AL5V
TM/CANAL
D802
1N4148
SMPS
AL5.8V
AL5V
AL5V
Q1P101
C2328
PC5V
SECAM/TM
S/SERVO
Q1P102
C2328
PC5V
VIDEO/OSD
C1P104
4.7/50
ZD1P02
MTZJ5.1B
D1P101
1N4148
C1P105
47/16
C1P106
47/16

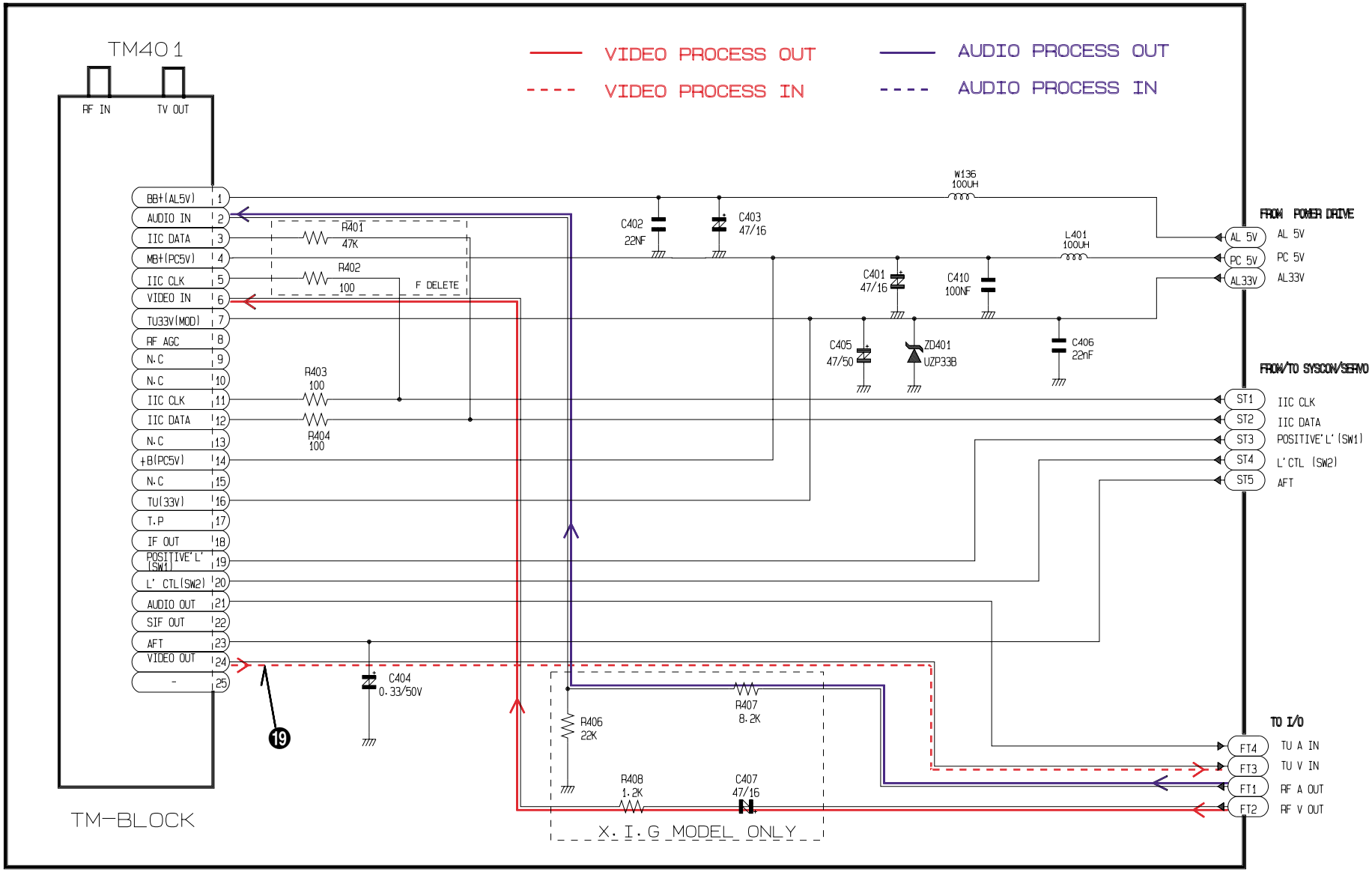
4-3. System Control/Servo



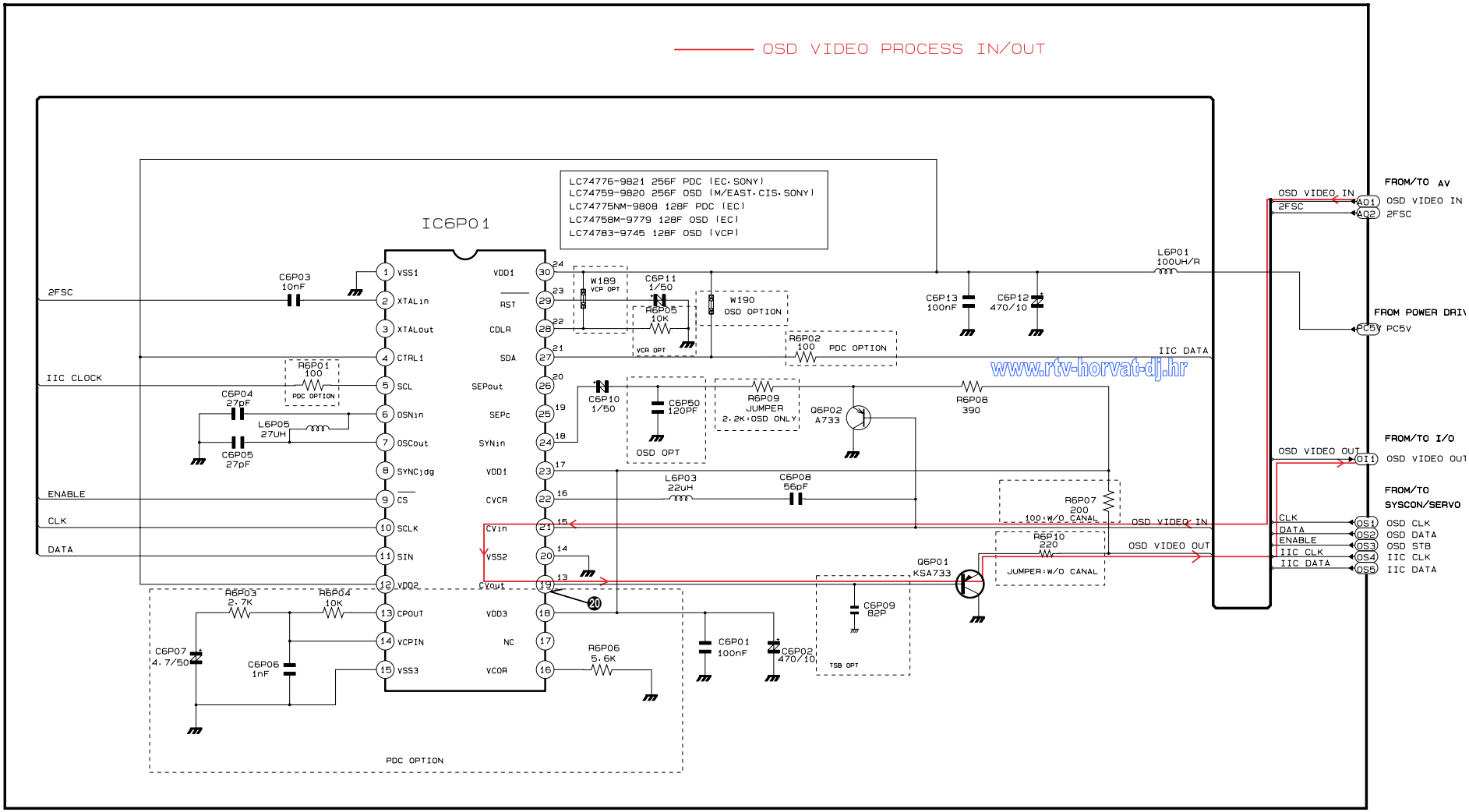
4-4. Audio/Video



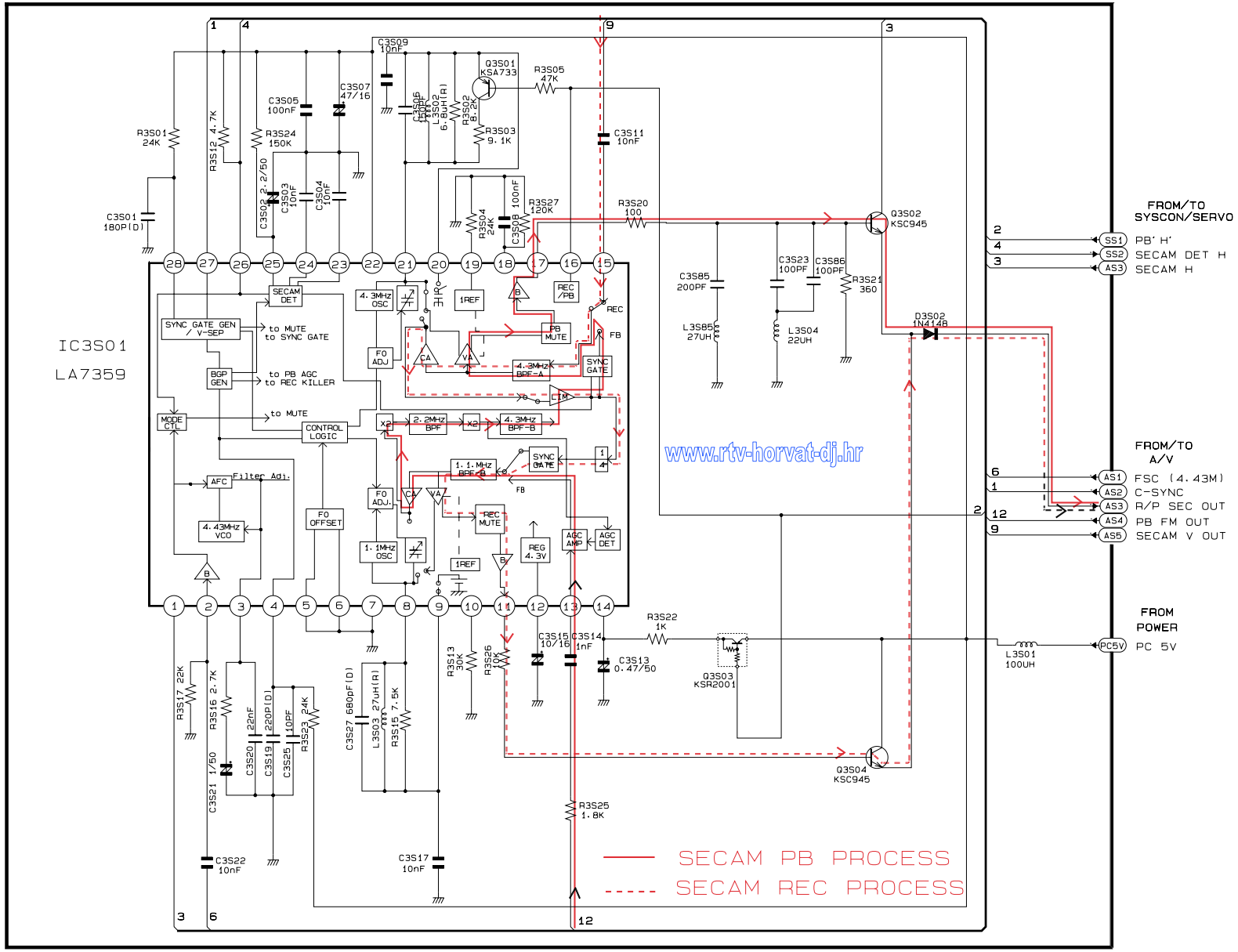
4-5. TM-Block


TM401
RF IN
TV OUT
VIDEO PROCESS OUT
VIDEO PROCESS IN
AUDIO PROCESS OUT
AUDIO PROCESS IN
BB+(AL5V) 1
AUDIO IN 2
IIC DATA 3
MB+(PC5V) 4
IIC CLK 5
VIDEO IN 6
TU33V(MOD) 7
RF AGC 8
N.C 9
N.C 10
IIC CLK 11
IIC DATA 12
N.C 13
+B(PC5V) 14
N.C 15
TU(33V) 16
T.P 17
IF OUT 18
POSITIVE'L' (SW1) 19
L' CTL(SW2) 20
AUDIO OUT 21
SIF OUT 22
AFT 23
VIDEO OUT 24
- 25
R401 47K
R402 100
F DELETE
R403 100
R404 100
C402 22NF
C403 47/16
W136 100UH
L401 100UH
C401 47/16
C410 100NF
C405 47/50
ZD401 UZP33B
C406 22nF
C404 0.33/50V
R406 22K
R407 8.2K
R408 1.2K
C407 47/16
X.I.G MODEL ONLY
FROM POWER DRIVE
AL 5V
PC 5V
AL33V
FROM/TO SYSCON/SERVO
ST1 IIC CLK
ST2 IIC DATA
ST3 POSITIVE'L'(SW1)
ST4 L'CTL (SW2)
ST5 AFT
TO I/O
FT4 TU A IN
FT3 TU V IN
FT1 RF A OUT
FT2 RF V OUT
TM-BLOCK

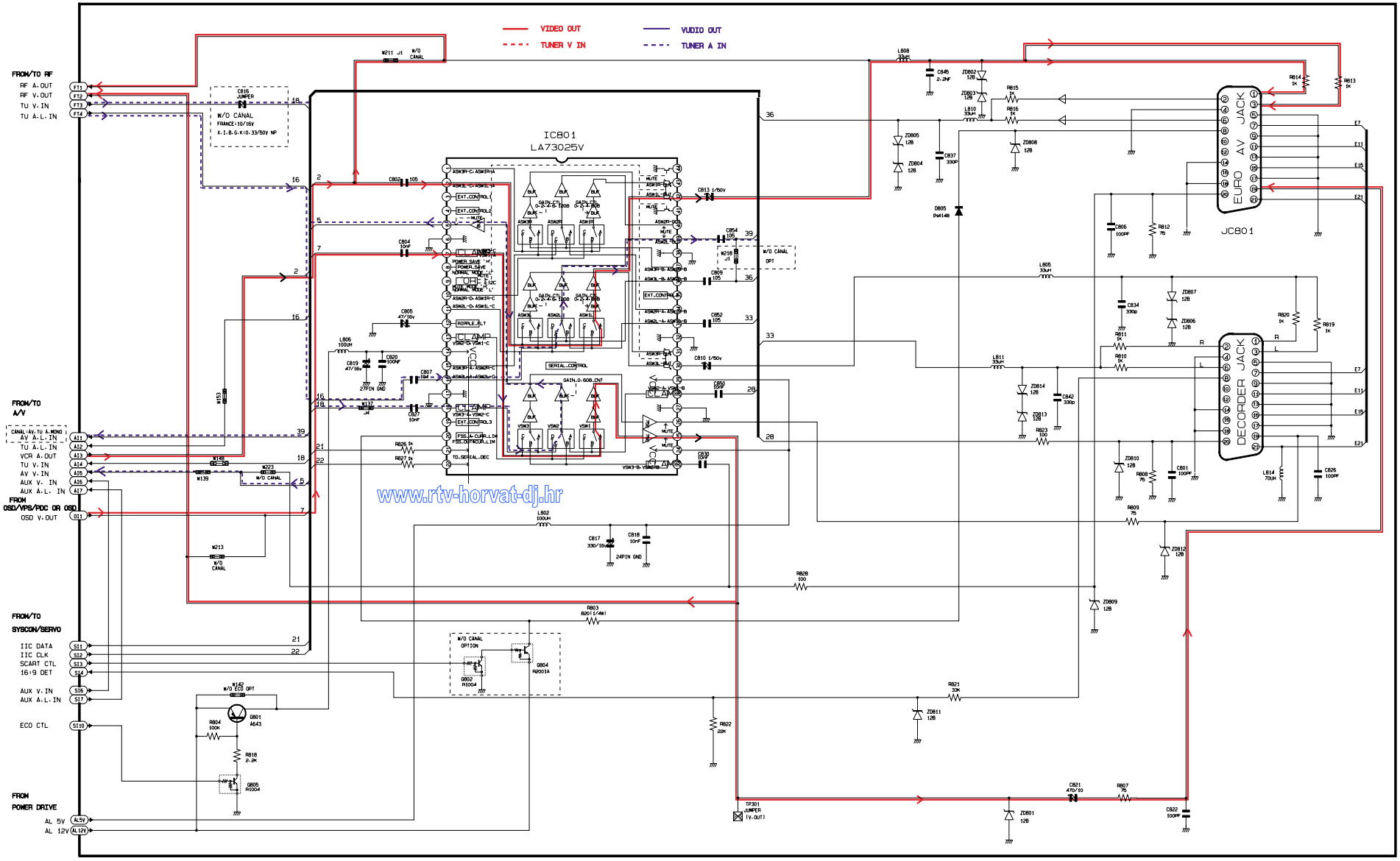
4-6. OSD (VPS/PDC)



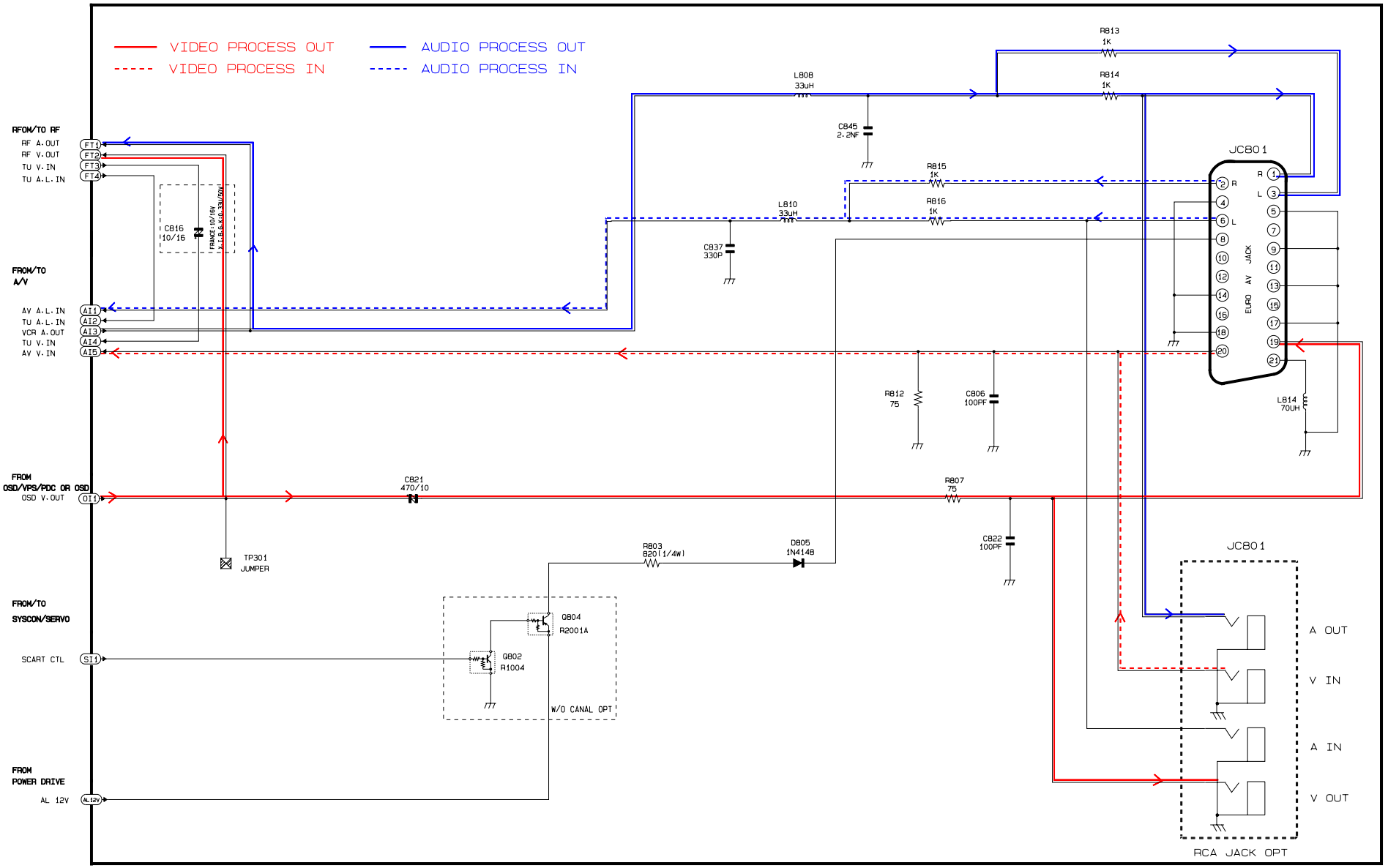
4-7. SECAM (SLV-SE210B/SX110B model)



4-8. Input-Output (2 Scart Jack)

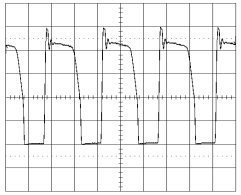


4-9. Input-Output (1 Scart Jack)

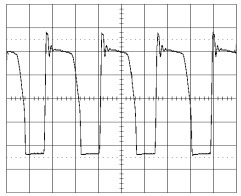


S.M.P.S. BLOCK

❶ Q1SR01-COLLECTOR
POWER OFF/380Vp-p

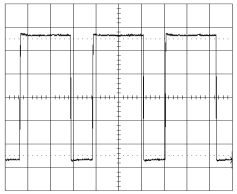


❷ Q1SR01-COLLECTOR
POWER ON/400Vp-p

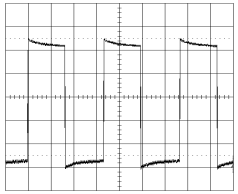


SYSTEM CONTROL/SERVO BLOCK

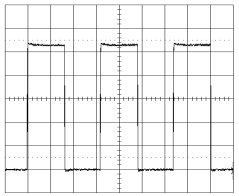
❸ IC601-3
PB/5.1Vp-p



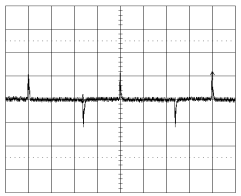
❼ IC610-8
PB/5.1V



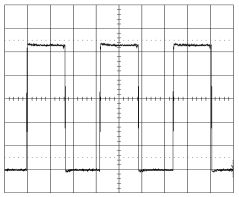
❹ IC601-9
PB/5.1Vp-p



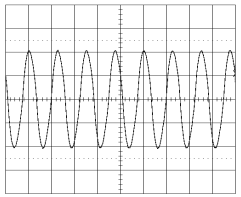
❽ TP601
PB/4.8Vp-p



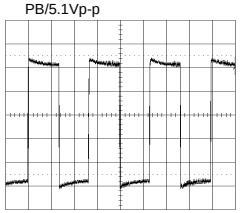
❺ IC601-10
PB/5.1Vp-p



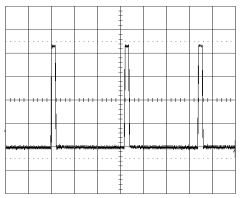
❾ IC601-18
PB/4Vp-p



❻ CN604-6
PB/5.1Vp-p

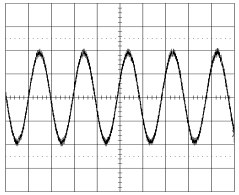


❿ IC601-100
PB/4.3Vp-p

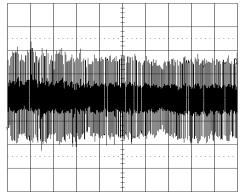


AUDIO/VIDEO BLOCK

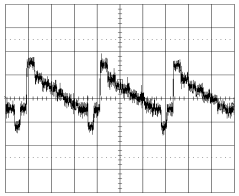
⓫ IC301-7/4
PB,REC/2Vp-p



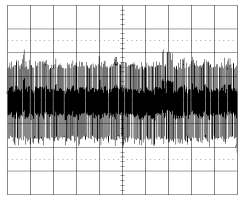
⓯ IC301-74
PB/300mVp-p



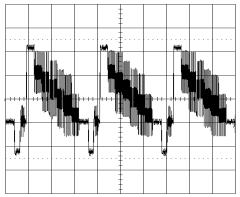
⓬ IC301-20
PB,REC/600mVp-p



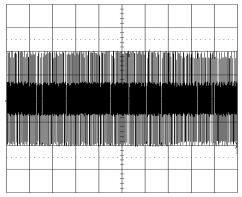
⓰ IC301-84
REC/150mVp-p



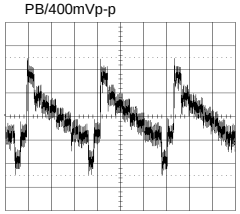
⓭ IC301-29
PB/2.2Vp-p



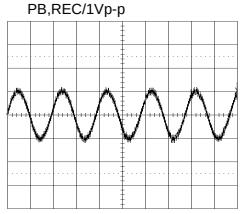
⓱ IC301-90
REC/4Vp-p



⓮ IC301-46
PB/400mVp-p

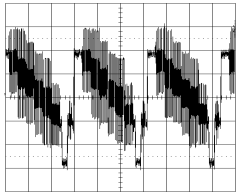


⓲ IC301-96
PB,REC/1Vp-p



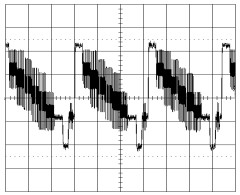
TM BLOCK

⓳ TM401-24
REC/1.2Vp-p



O. S. D. BLOCK

⓴ IC6P01-19
PB/2.1Vp-p



LOGIC BLOCK

PIN \ MODE	PLAY	STOP	REC
IC601	PD784927		
1	—	—	5.16
2	5.19	5.18	5.16
3	3.60	—	3.59
4	5.17	5.17	5.16
5	4.96	4.97	4.93
6	5.1	5.18	5.09
7	5.0	5.18	5.09
8	3.65	3.6	3.65
9	2.63	2.62	2.63
10	2.71	5.16	2.72
11	—	—	—
12	5.07	5.02	5.04
13	—	—	—
14	5.19	5.19	5.16
15	2.51	2.52	2.51
16	2.51	2.51	2.50
17	—	—	—
18	2.32	2.32	2.31
19	2.32	2.33	2.32
20	5.12	5.1	5.12
21	—	—	—
22	—	—	—
23	4.3	4.3	4.43
24	2.5	4.3	4.28
25	—	—	—
26	—	—	—
27	5.18	4.8	4.87
28	5.18	4.8	4.8
29	2.67	4.3	4.31
30	—	—	—
31	—	—	—
32	5.16	5.16	5.14
33	—	—	—
34	5.13	5.13	5.11
35	—	—	—
36	5.18	5.17	5.16
37	5.18	5.17	5.16
38	5.18	5.17	5.15
39	5.17	5.17	5.15
40	—	—	—
41	5.17	5.19	5.16
42	5.08	5.07	5.07
43	4.41	4.43	4.46
44	3.26	—	2.7
45	0.9	0.9	0.9
46	0.9	—	1.66
47	3.6	0.9	3.50
48	0.9	0.9	0.94
49	0.9	—	0.9
50	0.84	4.0	0.89

PIN \ MODE	PLAY	STOP	REC
IC601	PD784927		
51	—	—	—
52	4.46	4.48	4.46
53	4.49	4.44	4.46
54	4.47	4.44	4.46
55	4.48	4.46	4.46
56	4.47	4.46	4.46
57	—	—	—
58	5.0	5.05	5.05
59	5.07	5.05	5.05
60	4.76	5.17	5.16
61	5.04	5.02	5.02
62	—	—	—
63	—	—	—
64	5.11	5.11	5.11
65	—	—	—
66	—	—	—
67	5.16	—	—
68	—	—	—
69	5.17	5.17	5.16
70	5.17	5.17	5.16
71	—	—	—
72	—	—	—
73	—	—	—
74	—	—	—
75	2.98	3.0	2.99
76	5.09	5.12	5.12
77	5.02	5.00	5.00
78	—	—	—
79	0.33	0.33	0.33
80	4.2	4.26	4.26
81	2.97	2.99	2.94
82	2.92	0.99	—
83	—	—	—
84	0.35	0.35	—
85	2.61	2.61	4.3
86	2.61	2.64	2.50
87	2.62	2.62	2.61
88	2.62	2.62	2.61
89	2.62	2.62	2.61
90	2.61	2.61	2.60
91	—	—	—
92	5.16	5.15	5.17
93	2.05	5.15	2.05
94	2.4	2.07	1.31
95	2.6	2.02	2.3
96	—	—	—
97	2.0	2.01	2.01
98	2.13	5.10	2.8
99	4.2	5.10	4.19
100	0.38	0.37	0.37

PIN \ MODE	PLAY	STOP	REC
IC610	LB11880		
1	0.85	0.85	0.86
2	2.69	2.68	2.69
3	5.20	5.21	5.20
4	2.66	2.67	2.67
5	2.66	2.67	2.66
6	2.66	2.66	2.66
7	0.27	—	—
8	2.01	2.00	2.00
9	13.57	13.75	13.89
10	—	—	—
11	5.03	5.02	5.02
12	5.04	5.04	5.02
13	—	—	—
14	—	—	—
15	—	—	—
16	2.69	2.57	2.70
17	2.67	2.15	2.69
18	2.64	2.58	2.63
19	2.67	2.57	2.67
20	—	—	—
21	13.58	13.76	13.89
22	3.29	3.16	3.29
23	3.29	2.77	3.29
24	3.30	3.16	3.29
25	0.87	0.87	0.87
26	0.70	0.70	0.71
27	1.03	1.03	1.03
28	2.74	2.74	2.75
29	2.74	2.75	2.79
30	—	—	—
IC605	24LC08		
1	—	—	—
2	—	—	—
3	—	—	—
4	—	—	—
5	4.75	4.90	4.72
6	4.82	4.98	4.82
7	—	—	—
8	5.14	5.11	5.13
IC604	KA7533		
1	5.21	5.20	5.19
2	—	—	—
3	4.96	4.96	4.95
IC608	7042P		
1	5.07	4.91	5.04
2	—	—	—
3	5.10	4.95	5.08

AUDIO/VIDEO BLOCK

PIN \ MODE	PLAY	STOP	REC
IC301	LA71598		
1	2.54	2.54	2.52
2	2.54	2.54	2.65
3	2.56	2.56	2.45
4	2.56	2.56	2.40
5	2.38	1.71	2.43
6	2.57	2.57	2.43
7	2.57	2.57	2.43
8	—	—	—
9	—	—	—
10	0.63	0.32	—
11	1.2	1.3	1.4
12	5.15	2.75	2.75
13	1.47	1.42	1.49
14	1.91	1.59	1.58
15	2.33	2.32	2.32
16	5.18	5.18	5.15
17	3.0	—	—
18	1.91	2.44	2.45
19	1.14	2.44	2.44
20	3.0	3.0	3.0
21	2.48	2.45	2.46
22	—	—	—
23	4.85	4.93	4.95
24	4.63	4.77	4.70
25	1.71	1.69	1.71
26	—	—	—
27	0.35	0.35	0.35
28	0.38	0.37	0.37
29	1.85	1.76	1.77
30	1.1	1.01	4.61
31	2.98	2.96	2.94
32	2.32	2.3	2.3
33	1.46	1.4	1.38
34	2.30	1.86	1.86
35	3.55	3.54	3.53
36	2.45	2.27	2.27
37	4.93	4.94	4.91
38	1.87	1.86	1.86
39	4.1	4.1	4.1
40	5.19	5.19	5.18
41	2.96	2.96	2.95
42	3.14	3.12	3.12
43	2.01	1.97	1.98
44	4.41	—	—
45	2.30	2.28	2.27
46	1.37	1.35	1.35
47	9.55	9.56	9.52
48	2.04	2.03	2.04
49	0.91	0.91	0.91
50	—	—	—

PIN \ MODE	PLAY	STOP	REC
IC301	LA71598		
51	1.78	1.78	1.78
52	2.66	2.66	2.66
53	—	—	—
54	2.66	2.66	2.65
55	5.16	5.17	5.14
56	0.55	0.55	0.56
57	3.45	3.44	3.45
58	5.19	5.19	5.18
59	3.36	3.34	3.36
60	3.55	3.56	3.56
61	3.41	3.42	3.43
62	3.56	3.57	3.57
63	0.09	0.11	0.11
64	—	0.39	0.42
65	2.07	2.1	2.1
66	2.83	2.82	2.86
67	4.08	4.1	4.05
68	—	—	—
69	1.56	1.56	1.55
70	2.07	3.0	2.1
71	2.53	2.53	2.52
72	3.44	3.24	3.29
73	3.56	3.56	3.55
74	1.94	1.90	1.81
75	5.19	5.19	5.18
76	2.57	2.57	2.56
77	—	0.35	0.54
78	2.57	2.57	0.95
79	2.8	2.57	2.56
80	2.57	2.57	2.56
81	—	—	—
82	—	—	—
83	—	—	—
84	—	—	—
85	—	—	—
86	—	—	—
87	5.14	5.15	5.1
88	2.01	2.0	4.27
89	—	—	—
90	2.01	2.0	4.25
91	2.01	2.0	4.27
92	0.42	0.44	1.52
93	3.1	1.44	—
94	—	—	1.32
95	—	—	—
96	2.3	2.34	2.32
97	—	—	—
98	2.57	2.57	2.55
99	5.16	5.17	4.21
100	2.57	2.57	2.80

I/O BLOCK

PIN \ MODE	PLAY	STOP	REC
IC801	LA73025		
1	1.01	1.50	1.19
2	5.64	1.35	1.01
3	—	2.71	0.92
4	—	—	—
5	1.58	0.30	0.26
6	—	—	—
7	0.14	0.31	2.07
8	—	0.32	1.79
9	—	0.44	0.32
10	0.36	0.20	0.15
11	5.64	5.64	0.20
12	2.18	5.01	0.22
13	2.42	1.97	2.25
14	13.29	13.40	1.76
15	2.50	2.47	1.58
16	5.64	5.64	1.30
17	—	2.37	1.16
18	3.05	—	0.91
19	—	—	—
20	12.82	12.92	13.01
21	4.77	4.80	4.8
22	4.94	4.80	4.81
23	2.09	2.25	2.25
24	4.95	4.94	2.16
25	3.1	2.73	2.04
26	2.04	2.02	2.02
27	1.72	—	—
28	1.86	1.86	1.86
29	4.95	2.07	4.95
30	2.69	4.98	2.86
31	2.14	1.92	2.54
32	1.80	—	—
33	5.63	5.64	0.35
34	2.31	2.54	0.48
35	—	—	0.51
36	5.63	5.64	5.64
37	2.44	2.65	2.45
38	—	—	2.94
39	4.98	4.98	4.98
40	2.57	2.01	2.59
41	—	—	—
42	4.98	0.30	4.98
43	2.77	0.34	2.08
44	2.34	2.30	1.26

VPS/PDC(OSD) BLOCK

PIN \ MODE	PLAY	STOP	REC
IC6P01	LC74776NM-9821		
1	—	—	—
2	2.72	2.73	2.71
3	5.16	5.16	5.14
4	5.17	5.17	5.15
5	4.85	4.92	4.95
6	2.46	2.49	2.48
7	2.58	2.58	2.57
8	5.16	5.16	5.15
9	3.75	3.64	3.65
10	5.14	5.13	5.12
11	4.68	4.58	4.8
12	5.16	5.17	5.15
13	2.15	2.15	2.14
14	2.15	2.15	2.14
15	—	0.8	—
16	0.93	0.93	0.93
17	1.70	1.37	1.81
18	5.16	5.17	5.15
19	1.85	1.78	1.77
20	1.90	2.8	4.64
21	1.97	1.77	1.77
22	1.72	2.67	2.10
23	5.16	5.17	5.15
24	3.02	2.98	2.97
25	2.55	2.55	2.54
26	5.16	5.16	5.15
27	4.65	4.82	4.83
28	3.76	3.77	3.75
29	5.15	5.15	5.14
30	5.16	5.17	5.15

SECAM BLOCK

PIN \ MODE	PLAY	STOP	REC
IC3501	LA7359		
1	—	—	—
2	1.99	2.01	2.01
3	4.01	4.0	3.99
4	0.58	0.58	0.59
5	—	—	—
6	—	—	—
7	—	—	—
8	2.55	2.54	2.54
9	2.55	2.54	2.54
10	2.41	2.43	2.42
11	2.70	2.62	2.62
12	4.33	4.32	4.32
13	2.57	2.58	2.58
14	2.01	4.71	4.70
15	2.7	2.7	2.7
16	5.16	—	—
17	2.49	—	—
18	2.15	2.07	2.07
19	2.38	2.40	2.40
20	2.55	2.58	2.58
21	2.21	2.58	2.58
22	5.02	5.05	5.05
23	2.58	3.07	3.07
24	2.58	3.07	3.07
25	2.75	2.72	2.72
26	0.33	0.32	0.33
27	0.37	0.37	0.37
28	0.44	0.44	0.44

SECTION 5
ALIGNMENT AND ADJUSTMENT

5-1. Reference

1) X-Point (Tracking center) adjustment, "Head switching adjustment" and "NVRAM option setting" can be adjusted with remote control.
2) When replacing the Micom (IC601) and NVRAM (IC605 ; EEPROM) be sure to adjust the "Head switching adjustment" and "NVRAM option setting".
3) When replacing the cylinder ass'y, be sure to adjust the "X-Point" and "Head switching adjustment".
4) How to adjustment.
   - Press the "SW718" button on Main PCB to set the adjustment mode.
   - If the corresponding adjustment button is pressed, the adjustment is performed automatically.
   - If the adjustment is completed, be sure to turn the power off.

5-1-1. Location of adjustment button of remote control

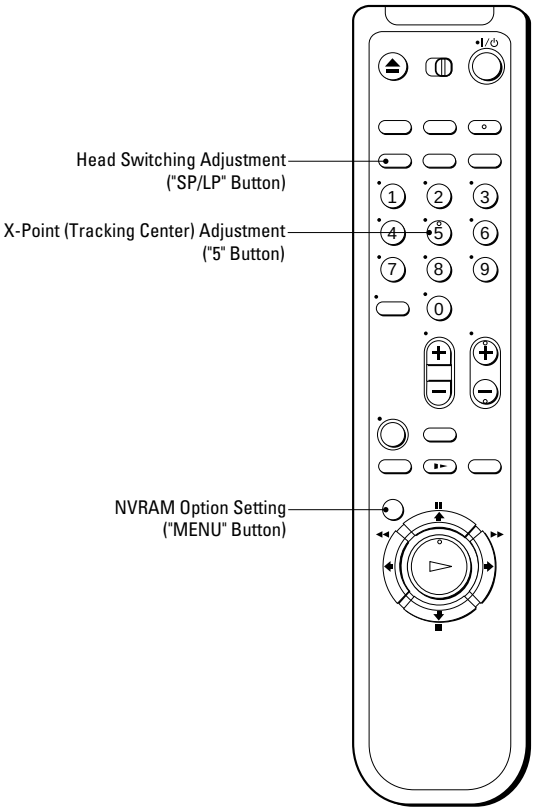


Fig. 5-1

5-1-2. Test point location for adjustment mode setting

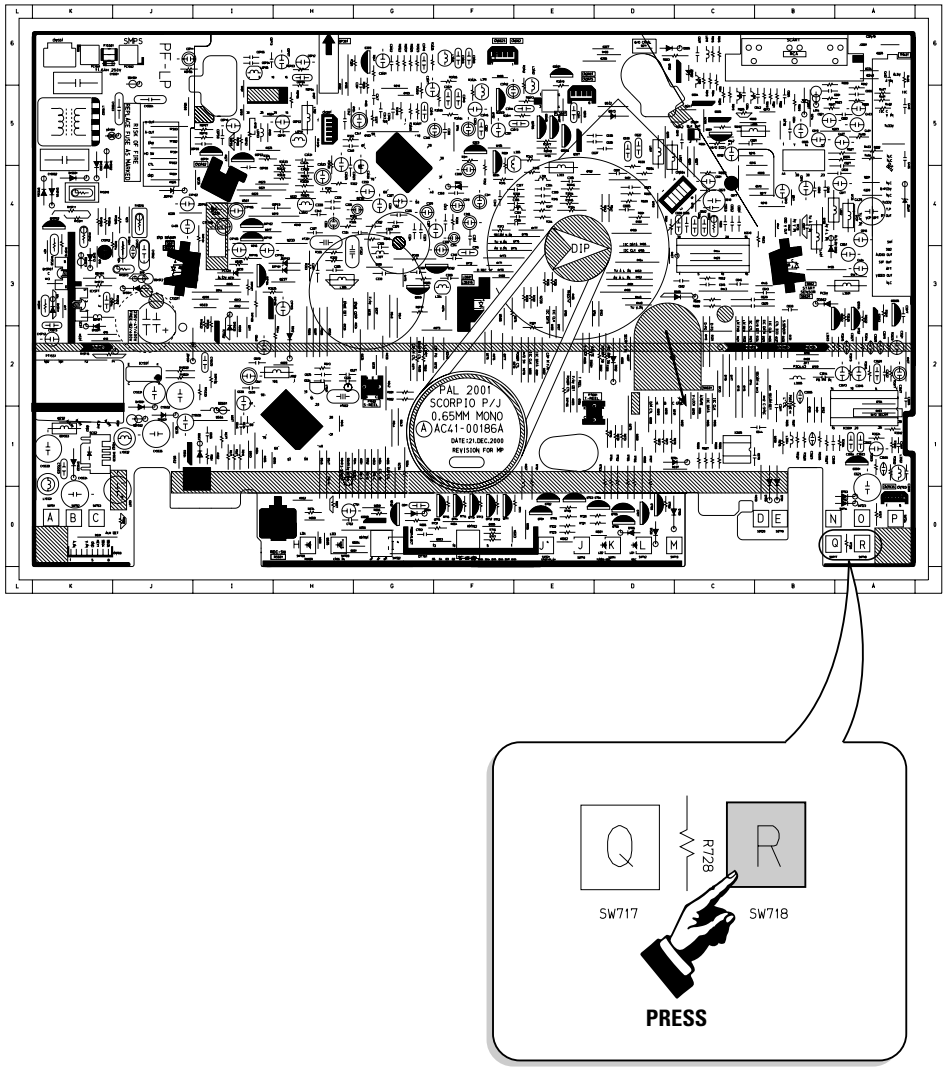


Fig. 5-2 Main PCB (Top View)

5-2. Mechanical Adjustment

Note : Refer to the Mechanical Manual for the adjustment and confirmation of Ass'y deck.

5-2-1. The number and position of test point

Test point :	TP601 (Control Pulse)
	TP602 (H'D S/W -Trigger)
	TP301 (Envelope)
	TP302 (Audio output)
	TP303 (Video output)

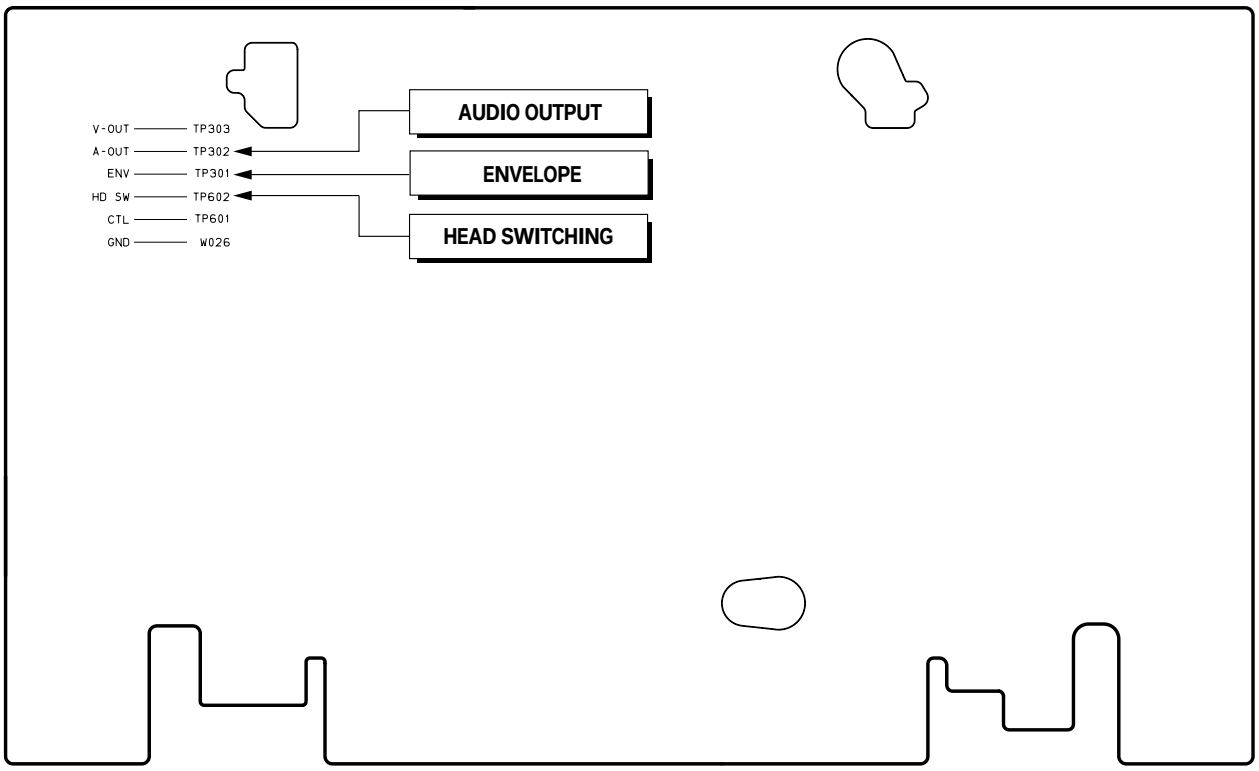


Fig. 5-3 Location of Test point (Main PCB-Top View)

5-2-2. ACE Head Position (X-Point) Adjustment

(See the 5-2-1(d) ACE Head Position (X-Point) Adjustment on page 5-2 of the Mechanical Manual)

1) Playback the alignment tape (Color bar).
2) Press the "SW718" button on Main PCB to set the adjustment mode. (See Fig. 5-2)
3) Press the "5" button of remote control then adjustment is operated automatically. (See Fig. 5-1)
4) Connect the CH-1 probe to TP301 (Envelope) the CH-2 probe to TP602 (H'D switching pulse) and then trigger to CH-1.
5) Insert the (-) driver into the X-Point adjustment hole and adjust it so that envelope waveform is maximum.
6) Turn the Power off.

5-3. Head Switching Point Adjustment

1) Playback the alignment tape.
2) Press the “SW718” button on Main PCB to set the adjustment mode. (See Fig. 5-2)
3) Press the “SP / LP” button of remote control then adjustment is operated automatically. (See Fig. 5-1)
4) Turn the Power off.

5-4. NVRAM Option Setting

1) NVRAM Option is adjusted at production line basically.
2) In case Micom (IC601) and NVRAM (IC605 ; EEPROM) is replaced, be sure to set the corresponding option number of the reqaired model. (If the option is not set, the unit is not operated.)

1) Press the “SW718” button on Main PCB to set the adjustment mode. (See Fig. 5-2)
2) Press the “MENU” button on the remote control about 5 seconds then option setting display is appeared. (See Fig. 5-4 and 5-5)
3) Select the option number (See Table 5-1) of corresponding model with “FF / REW / STOP / PAUSE” button on the remote control.
4) If selecting the option number is completed, press the “OK (PALY)” button of remote control. (If “OK (PLAY)” button is pressed, the selected number is changes reversed color. ; See Fig. 5-4)
5) Press the “MENU” button of remote control again to store the option number. (“PLEASE WAIT” is displayed for a second as shown Fig. 5-5 and this setting is completed.)
6) Turn the Power off.

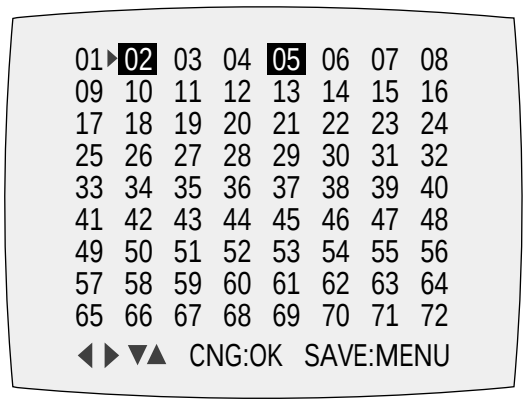


Fig. 5-4

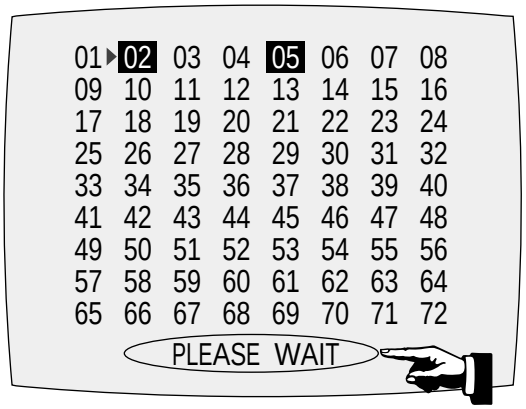


Fig. 5-5

<Table 5-1>

MODELS	OPTION NUMBER
SLV-SE210/D1	2, 4, 5, 11, 13, 20, 30, 32, 38, 42, 45, 60, 61, 66
SLV-SE210/D2	
SLV-SE210/D3	
SLV-SX110/A1	13, 20, 30, 32, 38, 42, 45, 60, 61, 66
SLV-SX110/A2	
SLV-SX110/A3	
SLV-SE210/B	2, 4, 5, 11, 13, 20, 21, 26, 30, 32, 33, 34, 35, 36, 38, 45, 60, 61, 66
SLV-SX110/B	13, 20, 21, 26, 30, 32, 33, 34, 35, 36, 38, 45, 60, 61, 66
SLV-SE210/G	3, 4, 5, 10, 13, 27, 30, 32, 36, 38, 41, 45, 60, 61, 66
SLV-SX110/K	13, 20, 30, 32, 35, 38, 42, 45, 60, 61, 66

SECTION 6
REPAIR PARTS LIST

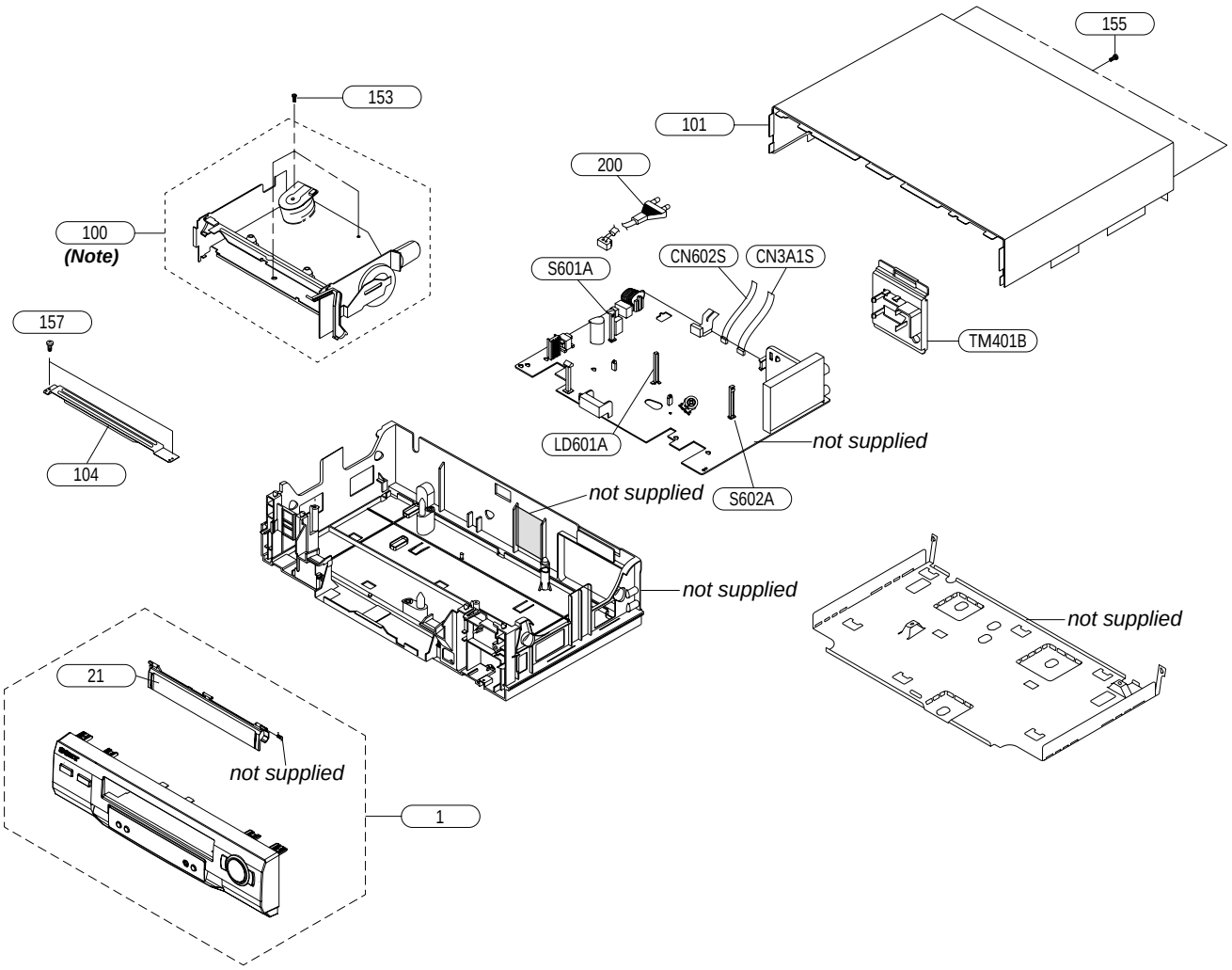
6-1. Exploded Views

NOTE:
- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.

Note:
The components identified by matk ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified

6-1-1. Instrument Assembly

Note: The assembly No. 100 does not includes LEVER-H/C CLEANER and ASSY-CYLINDER.

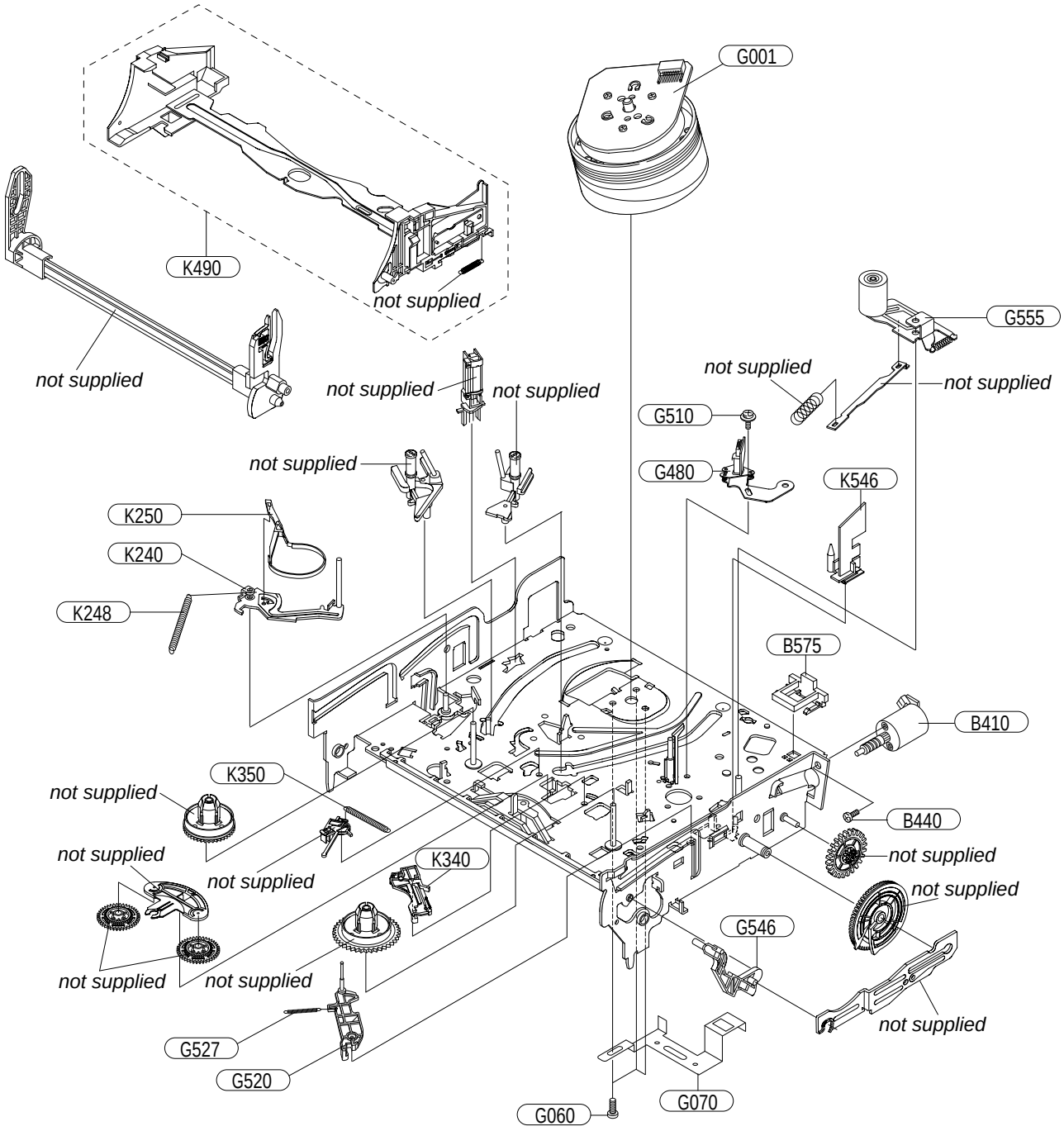


Ref. No.	Part No.	Description	Remarks
1	3-066-328-01	ASSY-PANEL FRONT (SE210G)	
1	3-066-333-01	ASSY-PANEL FRONT (SE210B)	
1	3-066-336-01	ASSY-PANEL FRONT (SE210D)	
1	3-066-338-01	ASSY-PANEL FRONT (SX110A)	
1	3-066-340-01	ASSY-PANEL FRONT (SX110B)	
21	3-067-794-01	DOOR-CASSETTE (SX110A/SX110B)	
21	3-067-795-01	DOOR-CASSETTE (SE210B/SE210D/SE210G)	
100	3-067-778-01	ASSY, MECHA-DECK	
101	3-066-329-01	CABINET, TOP (SE210B/SE210D/SE210G)	
101	3-066-329-11	CABINET, TOP (SX110A/SX110B)	
104	3-066-193-01	FL REINFORCEMENT	
153	7-685-661-11	SCREW +BVTP 4X12 TYPE2 NON-SLIT	

Ref. No.	Part No.	Description	Remarks
155	7-685-663-11	SCREW +BVTP 4X16 TYPE2 NON-SLIT	
157	7-685-548-19	SCREW +BTP 3X12 TYPE2 NON-SLIT	
⚠200	1-823-023-11	POWER-CORD (SE210B/SE210D/SX110A/SX110B)	
⚠200	1-823-025-11	POWER-CORD (SE210G)	
CN3A1S	1-823-022-11	CABLE-FLAT 6P	
CN602S	1-823-164-11	CABLE-FLAT 7P	
LD601A	3-067-777-01	HOLDER-LED	
S601A	3-067-776-01	HOLDER-SENSOR	
S602A	3-067-776-01	HOLDER-SENSOR	
TM401B	3-066-699-11	CONNECTOR BOARD-ASSY (SE210B/SE210D)	
TM401B	3-066-699-01	CONNECTOR BOARD-ASSY (SE210G/SX110A/SX110B)	

Note: The components identified by matk ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified

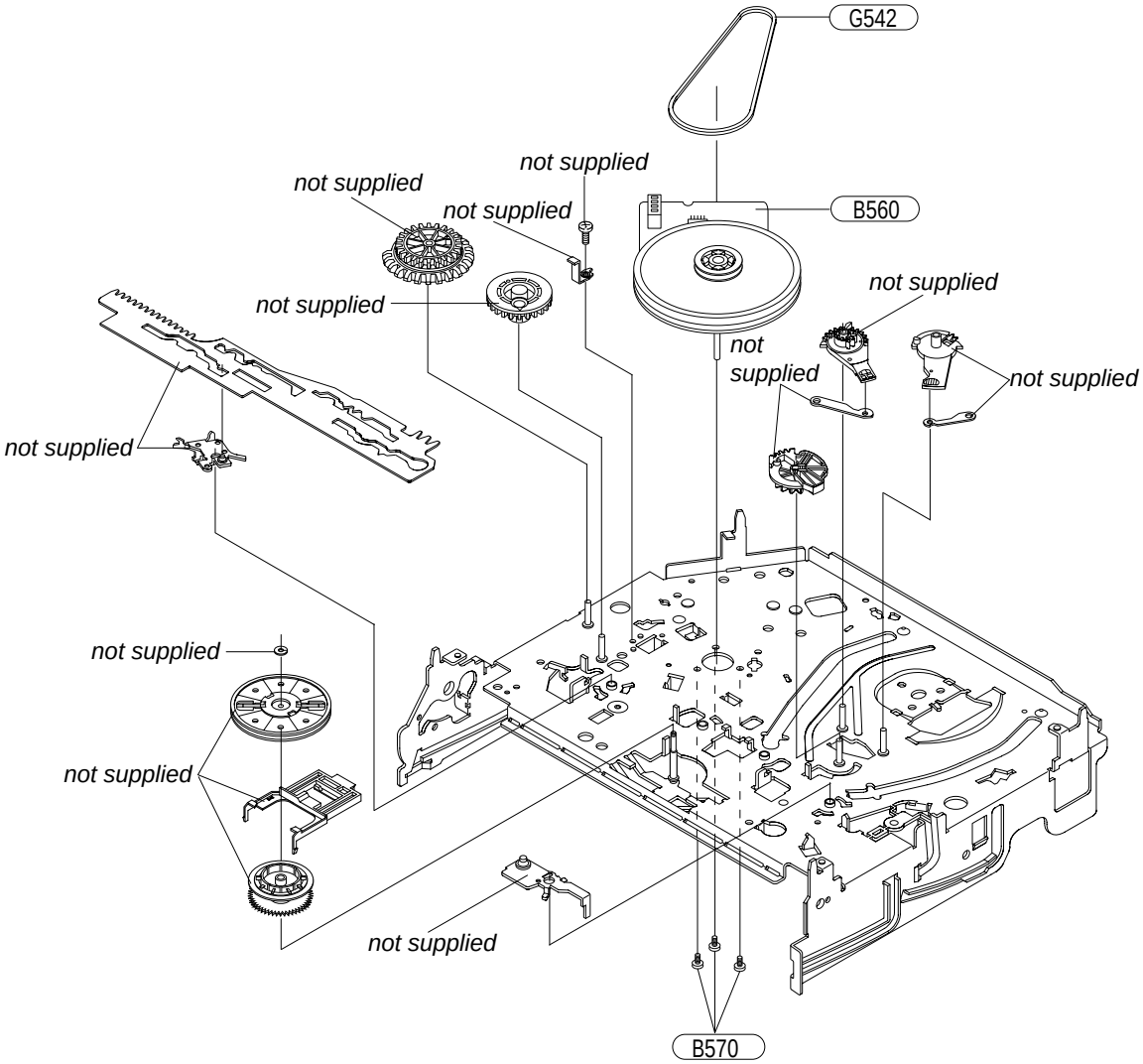
6-1-2. Mechanical Parts (Top Side)



Ref. No.	Part No.	Description	Remarks
B410	1-763-704-11	MOTOR-LOADING ASSY	
B440	7-682-144-01	SCREW-MACHINE +P 3X3	
B575	3-070-041-01	DAMPER-CAPSTAN	
G001	1-763-706-11	ASSY-CYLINDER (PAL) (SE210B/SE210D/SX110A/SX110B)	
G001	1-763-707-11	ASSY-CYLINDER (PAL)(SE210G)	
G060	7-682-647-01	SCREW-ASSY MACH +PS 3X6	
G070	3-067-796-01	PLATE-GROUND DECK	
G480	1-500-698-11	HEAD-ACE ASS	
G510	7-621-759-35	SCREW-ASSY TAPT +PSW 2.6X5Y	
G520	3-067-779-01	LEVER-#9 GUIDE ASSY	

Ref. No.	Part No.	Description	Remarks
G527	3-067-780-01	SPRING-#9 GUIDE	
G546	3-067-787-01	LEVER-FL DOOR	
G555	3-067-784-01	LEVER-UNIT PINCH ASSY	
K240	3-067-781-01	LEVER-TENSION ASSY	
K248	3-067-782-01	SPRING-TENSION LEVER	
K250	3-067-783-01	BAND-BRAKE ASSY	
K340	3-067-785-01	LEVER-T.BRAKE ASSY	
K350	3-067-786-01	SPRING-BRAKE	
K490	3-067-788-01	HOLDER-FL CASS. ASSY	
K546	3-067-789-01	GUIDE-CASS. DOOR	

6-1-3. Mechanical Parts (Bottom Side)



Ref. No.	Part No.	Description	Remarks
B560	1-763-703-11	MOTOR-CAPSTAN	
B570	7-685-133-11	SCREW +P 2.6X6 TYPE2	
G542	3-067-790-01	BELT-PULLEY	

MAIN

6-2. Electrical Parts List

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- CAPACITORS:
  uF: µF
- RESISTORS
  All resistors are in ohms.
  METAL: metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F: nonflammable
- COILS
  uH: µH
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA...: µA... , uPA... , µPA... ,
  uPB... , µPB... , uPC... , µPC... ,
  uPD..., µPD...

When indicating parts by reference number, please include the board name.

Note:
The components identified by matk ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified

- The letter "C" after the ref. No. indicates the chip part.

Ref. No.	Part No.	Description			Remarks
		MAIN BOARD COMPLETE			
		**********			
		< FERRITE CORE >			
BD1SD1	1-400-085-11	INDUCTOR	70uH		
BD1SR1	1-400-086-11	FERRITE CORE			
BD1SS2	1-400-085-11	INDUCTOR	70uH		
BD1SS3	1-400-086-11	FERRITE CORE			
		< CAPACITOR >			
C1P102	1-126-790-11	ELECT	47uF	20%	25V
C1P103	1-126-458-61	ELECT	1uF	20%	50V
C1P104	1-126-794-11	ELECT	4.7uF	20%	50V
C1P105	1-126-786-11	ELECT	47uF	20%	16V
C1P106	1-126-786-11	ELECT	47uF	20%	16V
C1P108	1-119-943-11	ELECT	47uF	20%	50V
C1SD03	1-165-557-11	CERAMIC DISC	0.0022uF	20%	400V
C1SD04	1-165-557-11	CERAMIC DISC	0.0022uF	20%	400V
C1SD11	1-165-577-11	ELECT	47uF	20%	400V
C1SD12	1-165-574-11	FILM MPEF	0.01uF	10%	630V
C1SD13	1-165-567-11	FILM PEF	0.0012uF	10%	50V
C1SR12	1-124-285-11	ELECT	22uF	20%	16V
C1SR14	1-165-571-11	FILM PEF	0.0047uF	5%	50V
⚠C1SS01	1-165-573-11	FILM MPEF	0.1uF	20%	275V
⚠C1SS02	1-165-573-11	FILM MPEF	0.1uF	20%	275V
C1SS03	1-165-567-11	FILM PEF	0.0012uF	10%	50V
C1SS31	1-128-582-11	ELECT	10uF	20%	100V
C1SS32	1-126-970-11	ELECT	330uF	20%	50V
C1SS33	1-126-940-11	ELECT	330uF	20%	25V
C1SS34	1-126-940-11	ELECT	330uF	20%	25V
C1SS35	1-126-926-11	ELECT	1000uF	20%	10V
C1SS36	1-126-925-11	ELECT	470uF	20%	10V
C1SS39	1-136-497-11	FILM PEF	0.1uF	5%	50V
C301	1-126-460-11	ELECT	2.2uF	20%	50V
C302	1-165-566-11	FILM PEF	0.047uF	5%	100V
C303	1-126-458-61	ELECT	1uF	20%	50V
C304C	1-163-237-11	CERAMIC CHIP	27pF	5%	50V
C305	1-165-561-11	CERAMIC MLC-AXIAL	180pF	10%	50V
C306	1-165-562-11	CERAMIC MLC-AXIAL	330pF	10%	50V
C307C	1-163-231-11	CERAMIC CHIP	15pF	5%	50V
C308C	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C309	1-126-458-61	ELECT	1uF	20%	50V
C310	1-126-109-11	ELECT	10uF	20%	16V
C311	1-126-435-71	ELECT	22uF	20%	16V
C313C	1-163-275-11	CERAMIC CHIP	0.001uF	10%	50V
C314	1-126-456-11	ELECT	0.47uF	20%	50V
C315	1-126-109-11	ELECT	10uF	20%	16V
C316C	1-164-343-11	CERAMIC CHIP	0.056uF	10%	50V
C318C	1-115-339-11	CERAMIC CHIP	0.1uF	+80-20%	50V
C320	1-126-458-61	ELECT	1uF	20%	50V
C321	1-126-109-11	ELECT	10uF	20%	16V
C322	1-126-458-61	ELECT	1uF	20%	50V
C323C	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C324C	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C325	1-161-330-11	CERAMIC MLC-AXIAL	0.01uF	30%	16V
C326	1-165-563-11	CERAMIC MLC-AXIAL	0.1uF	80-20%	
C327	1-126-437-11	ELECT	47uF	20%	16V
C328	1-126-330-11	CERAMIC MLC-AXIAL	0.01uF	30%	16V
C329	1-126-330-11	CERAMIC MLC-AXIAL	0.01uF	30%	16V
C330	1-126-330-11	CERAMIC MLC-AXIAL	0.01uF	30%	16V
C331	1-126-437-11	ELECT	47uF	20%	16V
C332C	1-115-339-11	CERAMIC CHIP	0.1uF	+80-20%	50V
C333	1-126-458-61	ELECT	1uF	20%	50V
C334C	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C335	1-126-458-61	ELECT	1uF	20%	50V
C336	1-126-458-61	ELECT	1uF	20%	50V
C337	1-161-494-11	CERAMIC MLC-AXIAL	0.022uF	+80-20%	
C338C	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C339C	1-104-760-11	CERAMIC CHIP	0.047uF	10%	50V
C340C	1-163-033-11	CERAMIC CHIP	0.022uF	10%	50V
C341	1-126-437-11	ELECT	47uF	20%	16V
C342	1-165-563-11	CERAMIC MLC-AXIAL	0.1uF	80-20%	50V
C343C	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C345C	1-163-222-11	CERAMIC CHIP	5pF	0.25pF	50V
C346	1-126-786-11	ELECT	47uF	20%	16V
C347C	1-163-006-11	CERAMIC CHIP	56pF	5%	50V
C348C	1-163-006-11	CERAMIC CHIP	56pF	5%	50V
C349C	1-163-233-11	CERAMIC CHIP	18pF	5%	50V
C350C	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C380C	1-163-238-11	CERAMIC CHIP	30pF	5%	50V
C381	1-161-330-11	CERAMIC MLC-AXIAL	0.01uF	30%	16V
C390	1-165-563-11	CERAMIC MLC-AXIAL	0.1uF	80-20%	50V
C393	1-161-259-11	CERAMIC MLC-AXIAL	10pF	5%	50V
C399	1-165-563-11	CERAMIC MLC-AXIAL	0.1uF	80-20%	50V
C3A01	1-126-794-11	ELECT	4.7uF	20%	50V
C3A02C	1-115-339-11	CERAMIC CHIP	0.1uF	+80-20%	50V
C3A04C	1-115-339-11	CERAMIC CHIP	0.1uF	+80-20%	50V
C3A08	1-136-485-11	FILM PEF	0.01uF	5%	50V
C3A09	1-165-572-11	FILM PEF	0.0068uF	5%	50V
C3A10C	1-163-020-11	CERAMIC CHIP	0.0082uF	10%	50V

Note: The components identified by matk ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified

Ref. No.	Part No.	Description			Remarks
C3A11	1-165-565-11	FILM PEF	0.039uF	5%	100V
C3A12	1-126-786-11	ELECT	47uF	20%	16V
C3A13C	1-163-022-11	CERAMIC CHIP	0.0012uF	10%	50V
C3A14C	1-163-019-11	CERAMIC CHIP	0.0068uF	10%	50V
C3A15C	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C3A16	1-126-794-11	ELECT	4.7uF	20%	50V
C3A17	1-126-109-11	ELECT	10uF	20%	16V
C3A18C	1-163-135-11	CERAMIC CHIP	560pF	10%	50V
C3A21C	1-164-690-11	CERAMIC CHIP	0.0022uF	10%	50V
C3A22	1-165-563-11	CERAMIC MLC-AXIAL	0.1uF	+80-20%	50V (SE210G/SX110A/SX110B)
C3A23	1-124-286-11	ELECT	33uF	20%	16V
C3A24	1-165-563-11	CERAMIC MLC-AXIAL	0.1uF	80-20%	50V
C3A25	1-126-435-71	ELECT	22uF	20%	16V
C3A29	1-165-563-11	CERAMIC MLC-AXIAL	0.1uF	80-20%	50V
C3A30	1-126-786-11	ELECT	47uF	20%	16V
C3S01	1-165-561-11	CERAMIC MLC-AXIAL	180pF	10%	50V (SE210B/SX110B)
C3S02	1-126-460-11	ELECT	2.2uF	20%	50V (SE210B/SX110B)
C3S03	1-136-485-11	FILM PEF	0.01uF	5%	50V (SE210B/SX110B)
C3S04	1-136-485-11	FILM PEF	0.01uF	5%	50V (SE210B/SX110B)
C3S05C	1-115-339-11	CERAMIC CHIP	0.1uF	+80-20%	50V (SE210B/SX110B)
C3S06C	1-163-121-11	CERAMIC CHIP	150pF	5%	50V (SE210B/SX110B)
C3S07	1-126-786-11	ELECT	47uF	20%	16V (SE210B/SX110B)
C3S08C	1-115-339-11	CERAMIC CHIP	0.1uF	+80-20%	50V (SE210B/SX110B)
C3S09C	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V (SE210B/SX110B)
C3S11	1-161-330-11	CERAMIC MLC-AXIAL	0.01uF	30%	16V (SE210B/SX110B)
C3S13	1-126-456-11	ELECT	0.47uF	20%	50V (SE210B/SX110B)
C3S14	1-161-323-11	CERAMIC MLC-AXIAL	0.001uF	10%	50V (SE210B/SX110B)
C3S15	1-126-109-11	ELECT	10uF	20%	16V (SE210B/SX110B)
C3S17	1-161-330-11	CERAMIC MLC-AXIAL	0.01uF	30%	16V (SE210B/SX110B)
C3S19	1-165-560-11	CERAMIC DISC	220pF	5%	50V (SE210B/SX110B)
C3S20C	1-163-033-11	CERAMIC CHIP	0.022uF	10%	50V (SE210B/SX110B)
C3S21	1-126-458-61	ELECT	1uF	20%	50V (SE210B/SX110B)
C3S22	1-161-330-11	CERAMIC MLC-AXIAL	0.01uF	30%	16V (SE210B/SX110B)
C3S23C	1-163-251-11	CERAMIC CHIP	100PF (SE210B/SX110B)		
C3S25	1-165-684-11	CERAMIC DISC	10pF	5%	50V (SE210B/SX110B)
C3S27	1-102-116-85	CERAMIC DISC	680pF	10%	50V (SE210B/SX110B)
C3S85C	1-163-258-11	CERAMIC CHIP	200PF	5%	50V (SE210B/SX110B)
C3S86C	1-163-093-11	CERAMIC CHIP	10P	5%	50V (SE210B/SX110B)
C401	1-126-786-11	ELECT	47uF	20%	16V
C402	1-161-494-11	CERAMIC MLC-AXIAL	0.022uF	+80-20%	25V
C403	1-126-786-11	ELECT	47uF	20%	16V
C404	1-126-958-11	ELECT	0.33uF	20%	50V
C405	1-119-943-11	ELECT	47uF	20%	50V
C406C	1-163-033-11	CERAMIC CHIP	0.022uF	10%	50V
C407	1-126-437-11	ELECT	47uF		16V (SE210D/SE210G/SX110A)
C410	1-165-563-11	CERAMIC MLC-AXIAL	0.1uF	80-20%	50V
C601	1-126-437-11	ELECT	47uF	20%	16V
C602C	1-163-033-11	CERAMIC CHIP	0.022uF	10%	50V
C603C	1-163-017-11	CERAMIC CHIP	0.0047uF	10%	50V
C604C	1-163-017-11	CERAMIC CHIP	0.0047uF	10%	50V
C605C	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C606C	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C607	1-165-644-11	ELECT	0.1F	+80-20%	5.5V
C608C	1-164-222-11	CERAMIC CHIP	0.22uF	10%	25V
C609C	1-163-033-11	CERAMIC CHIP	0.022uF	10%	50V
C611C	1-163-023-11	CERAMIC CHIP	0.015uF	10%	50V
C612	1-165-563-11	CERAMIC MLC-AXIAL	0.1uF	80-20%	50V
C613C	1-163-033-11	CERAMIC CHIP	0.022uF	10%	50V
C615C	1-163-275-11	CERAMIC CHIP	0.001uF	10%	50V
C616	1-161-494-11	CERAMIC MLC-AXIAL	0.022uF	+80-20%	25V
C617	1-124-271-11	ELECT	1uF	20%	50V
C618	1-126-968-11	ELECT	100uF	20%	50V
C619C	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C620C	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C621	1-126-926-11	ELECT	1000uF	20%	10V
C622C	1-164-344-11	CERAMIC CHIP	0.068uF	20%	50V
C623C	1-163-033-11	CERAMIC CHIP	0.022uF	10%	50V
C624	1-161-283-51	CERAMIC MLC-AXIAL	22pF	5%	50V
C625	1-161-283-51	CERAMIC MLC-AXIAL	22pF	5%	50V
C626C	1-163-235-11	CERAMIC CHIP	22pF	5%	50V
C627C	1-163-235-11	CERAMIC CHIP	22pF	5%	50V
C629C	1-163-275-11	CERAMIC CHIP	0.001uF	10%	50V
C633C	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C634C	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C635C	1-164-690-11	CERAMIC CHIP	0.0022uF	10%	50V
C636C	1-164-690-11	CERAMIC CHIP	0.0022uF	10%	50V
C637C	1-163-267-11	CERAMIC CHIP	470pF	5%	50V
C638	1-126-794-11	ELECT	4.7uF	20%	50V
C639C	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C640	1-126-437-11	ELECT	47uF	20%	16V
C641	1-126-382-11	ELECT	100uF	20%	16V
C644C	1-163-259-11	CERAMIC CHIP	220pF	5%	50V
C646C	1-115-339-11	CERAMIC CHIP	0.1uF	+80-20%	50V
C651C	1-163-033-11	CERAMIC CHIP	0.022uF	10%	50V
C652C	1-163-033-11	CERAMIC CHIP	0.022uF	10%	50V
C653C	1-163-033-11	CERAMIC CHIP	0.022uF	10%	50V
C690C	1-104-760-11	CERAMIC CHIP	0.047uF	10%	50V
C691C	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C692	1-126-925-11	ELECT	470uF	20%	10V
C695C	1-163-023-11	CERAMIC CHIP	150pF	5%	50V
C6P01	1-165-563-11	CERAMIC MLC-AXIAL	0.1uF	80-20%	50V
C6P02	1-165-925-11	ELECT	470uF	20%	10V
C6P03	1-161-330-11	CERAMIC MLC-AXIAL	0.01uF	30%	16V
C6P04	1-165-711-11	CERAMIC MLC-AXIAL	27pF	5%	50V
C6P05	1-161-316-11	CERAMIC MLC-AXIAL	27pF	5%	50V

MAIN

Ref. No.	Part No.	Description	Remarks
C6P06	1-165-568-11	FILM PEF 0.001uF 50% 50V	(SE210B/SE210D/SE210G)
C6P07	1-126-794-11	ELECT 4.7uF 20% 50V	(SE210B/SE210D/SE210G)
C6P08C	1-163-006-11	CERAMIC CHIP 56pF 5% 50V	
C6P10	1-126-458-61	ELECT 1uF 20% 50V	
C6P11	1-126-458-61	ELECT 1uF 20% 50V	
C6P12	1-126-925-11	ELECT 470uF 20% 10V	
C6P13	1-165-563-11	CERAMIC MLC-AXIAL 0.1uF 80-20% 50V	
C6P50	1-165-705-11	CERAMIC CHIP 0.0012uF	(SX110A/SX110B)
C701	1-126-925-11	ELECT 470uF 20% 10V	
C702C	1-163-021-11	CERAMIC CHIP 0.01uF 10% 50V	
C703	1-161-323-11	CERAMIC MLC-AXIAL 0.001uF 10% 50V	
C801C	1-163-251-11	CERAMIC CHIP 100pF 5% 50V	(SE210B/SE210D)
C802C	1-165-319-11	CERAMIC CHIP 1uF +80-20% 16V	(SE210B/SE210D)
C804	1-161-330-11	CERAMIC MLC-AXIAL 0.01uF 30% 16V	(SE210B/SE210D)
C805	1-126-786-11	ELECT 47uF 20% 16V	(SE210B/SE210D)
C806C	1-163-251-11	CERAMIC CHIP 100pF 5% 50V	
C807	1-165-563-11	CERAMIC MLC-AXIAL 0.1uF 80-20% 50V	(SE210B/SE210D)
C809C	1-165-319-11	CERAMIC CHIP 1uF +80-20% 16V	(SE210B/SE210D)
C810	1-126-458-61	ELECT 1uF 20% 50V	(SE210B/SE210D)
C813	1-126-458-61	ELECT 1uF 20% 50V	(SE210B/SE210D)
C816	1-126-109-11	ELECT 10uF 20% 16V	(SE210B/SX110B)
C816	1-124-269-11	ELECT 0.33uF 20% 50V	(SE210D/SE210G/SX110A)
C817	1-104-661-11	ELECT 330uF 20% 16V	(SE210B/SE210D)
C818	1-161-330-11	CERAMIC MLC-AXIAL 0.01uF 30% 16V	(SE210B/SE210D)
C819	1-126-437-11	ELECT 47uF 20% 16V	(SE210B/SE210D)
C820	1-165-563-11	CERAMIC MLC-AXIAL 0.1uF 80-20% 50V	(SE210B/SE210D)
C821	1-126-925-11	ELECT 470uF 20% 10V	
C822C	1-163-251-11	CERAMIC CHIP 100pF 5% 50V	
C826C	1-163-251-11	CERAMIC CHIP 100pF 5% 50V	(SE210B/SE210D)
C827	1-161-330-11	CERAMIC MLC-AXIAL 0.01uF 30% 16V	(SE210B/SE210D)
C830	1-161-330-11	CERAMIC MLC-AXIAL 0.01uF 30% 16V	(SE210B/SE210D)
C834C	1-163-263-11	CERAMIC CHIP 330pF 5% 50V	(SE210B/SE210D)
C837C	1-163-263-11	CERAMIC CHIP 330pF 5% 50V	
C842C	1-163-263-11	CERAMIC CHIP 330pF 5% 50V	(SE210B/SE210D)
C845C	1-164-690-11	CERAMIC CHIP 0.0022uF 10% 50V	
C850	1-161-330-11	CERAMIC MLC-AXIAL 0.01uF 30% 16V	(SE210B/SE210D)
C852C	1-165-319-11	CERAMIC CHIP 1uF +80-20% 16V	(SE210B/SE210D)
C854C	1-165-319-11	CERAMIC CHIP 1uF +80-20% 16V	(SE210B/SE210D)

Ref. No.	Part No.	Description	Remarks
		< CONNECTOR >	
CN1SS1	1-815-692-11	CONNECTOR HEADER 2P	
CN301	1-815-686-11	CONNECTOR FPC 6P	
CN3A01	1-815-688-11	CONNECTOR FPC 6P SN	
CN3A02	1-815-691-11	CONNECTOR SOCKET 2P	
CN601	1-815-700-11	CONNECTOR 2P	
CN602	1-815-689-11	CONNECTOR FPC7P	
CN604	1-815-695-11	CONNECTOR HEADER 8P	
		< COVER JACK TERMINAL >	
CON/B	3-066-699-11	COVER JACK TERMINAL	
		< DIODE >	
D1P101	1-804-407-11	DIODE 1N4148	
D1SD11	1-804-412-11	DIODE F1T4	
D1SD31	1-804-412-11	DIODE F1T4	
D1SR11	1-804-407-11	DIODE 1N4148	
D1SS01	1-804-413-11	DIODE 1T5	
D1SS02	1-804-413-11	DIODE 1T5	
D1SS03	1-804-413-11	DIODE 1T5	
D1SS04	1-804-413-11	DIODE 1T5	
D1SS11	1-804-408-11	DIODE UF4007	
D1SS30	1-804-409-11	DIODE 1N4002	
D1SS31	1-804-412-11	DIODE F1T4	
D1SS32	1-804-411-11	DIODE UG2D	
D1SS33	1-804-410-11	DIODE FML-M02S	
D302	1-804-407-11	DIODE 1N4148	
D3S02	1-804-407-11	DIODE 1N4148	(SE210B/SX110B)
D602	1-804-409-11	DIODE 1N4002	
D603	1-804-407-11	DIODE 1N4148	
D604	1-804-407-11	DIODE 1N4148	
D612	1-804-409-11	DIODE 1N4002	
D701	1-804-407-11	DIODE 1N4148	
D702	1-804-407-11	DIODE 1N4148	
D703	1-804-407-11	DIODE 1N4148	
D704	1-804-407-11	DIODE 1N4148	
D705	1-804-407-11	DIODE 1N4148	
D708	1-804-407-11	DIODE 1N4148	
D709	1-804-407-11	DIODE 1N4148	
D720	1-804-407-11	DIODE 1N4148	
D802	1-804-407-11	DIODE 1N4148	
D805	1-804-407-11	DIODE 1N4148	
		< LED DISPLAY >	
DT701	1-804-443-11	LED DISPLAY A-304EG	
		< FUSE >	
⚠F1SS01	1-576-526-11	FUSE 1.6A T.L	
FC1SS1	1-576-527-11	FUSE CLIP	
FC1SS2	1-576-527-11	FUSE CLIP	
		< COIL >	
FL3A01	1-424-829-11	COIL(OSC)	

Note: The components identified by matk ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified

Ref. No.	Part No.	Description	Remarks
		< IC >	
⚠IC1SS1	1-804-44011	PHOTO COUPLER PS2501	
IC1SS2	1-804-445-11	IC KA431Z	
IC301	1-804-433-11	IC LA71598M	
IC3S01	1-804-450-11	IC LA7359 (SE210B/SX110B)	
IC601	1-804-451-11	IC MICOM1	
IC604	1-804-444-11	IC KA7533	
IC605	1-804-432-11	IC 524C80D81	
IC608	1-804-480-11	IC 7042	
IC610	1-804-430-11	IC LB11880	
IC6P01	1-804-453-11	IC PVC/OSD (SE210B/SE210D/SE210G)	
IC6P01	1-804-454-11	IC OSD (SX110A/SX110B)	
IC801	1-804-436-11	IC LA73025V (SE210B/SE210D)	
		< JACK SCART >	
JC801	1-815-697-11	JACK-SCART 42P 2R (SE210B/SE210D)	
JC801	1-815-707-11	JACK-SCART 21P (SE210G/SX110A/SX110B)	
		< COIL >	
⚠L1SS02	1-424-830-11	LINE FILTER 30mH	
L1SS31	1-424-828-11	COIL-CHOKE 10uH	
L1SS32	1-424-828-11	COIL-CHOKE 10uH	
L301	1-400-080-11	INDUCTOR 56uH	
L302	1-400-074-11	INDUCTOR 100uH	
L304	1-400-081-11	INDUCTOR 100uH	
L306	1-400-075-11	INDUCTOR 120uH	
L307	1-400-076-11	INDUCTOR 12uH	
L310	1-400-081-11	INDUCTOR 100uH	
L3A01	1-400-083-11	INDUCTOR 15mH	
L3A02	1-400-081-11	INDUCTOR 100uH	
L3A03	1-400-081-11	INDUCTOR 100uH	
L3S01	1-400-074-11	INDUCTOR 100uH (SE210B/SX110B)	
L3S02	1-400-107-11	INDUCTOR 6.8uH (SE210B/SX110B)	
L3S03	1-400-084-11	INDUCTOR 27uH (SE210B/SX110B)	
L3S04	1-400-078-11	INDUCTOR 22uH (SE210B/SX110B)	
L3S85	1-400-148-11	INDUCTOR 27uH (SE210B/SX110B)	
L601	1-400-074-11	INDUCTOR 100uH	
L602	1-400-074-11	INDUCTOR 100uH	
L603	1-400-074-11	INDUCTOR 100uH	
L6P01	1-400-081-11	INDUCTOR 100uH	
L6P03	1-400-078-11	INDUCTOR 22uH	
L6P05	1-400-084-11	INDUCTOR 27uH	
L802	1-400-074-11	INDUCTOR 100uH (SE210B/SE210D)	
L805	1-400-079-11	INDUCTOR 33uH (SE210B/SE210D)	
L806	1-400-074-11	INDUCTOR 100uH (SE210B/SE210D)	
L808	1-400-079-11	INDUCTOR 33uH	
L810	1-400-079-11	INDUCTOR 33uH	
L811	1-400-079-11	INDUCTOR 33uH (SE210B/SE210D)	
L814	1-400-085-11	INDUCTOR 70uH	
		< IR LED >	
LD601	1-804-438-11	LED IR GL381	
	3-067-777-01	HOLDER-LED (LD601A)	
		< TRANSFORMER >	
⚠PT1SS1	1-437-395-11	TRANS SWITCHING	
		< PHOTO INTERRUPTER >	
PT601	1-804-441-11	PHOTO INTERRUPTER SG-260	
PT602	1-804-441-11	PHOTO INTERRUPTER SG-260	

Ref. No.	Part No.	Description	Remarks
		< TRANSISTOR >	
Q1P101	1-804-424-11	TRANSISTOR KSC2328A-Y	
Q1P102	1-804-424-11	TRANSISTOR KSC2328A-Y	
Q1P104	1-804-481-11	TRANSISTOR STB1277	
Q1P105	1-804-427-11	TRANSISTOR KSR1001	
Q1SR01	1-804-425-11	TRANSISTOR 2SC4517A	
Q1SR02	1-804-422-11	TRANSISTOR KTC3203-Y	
Q302	1-804-420-11	TRANSISTOR KSA733	
Q303	1-804-421-11	TRANSISTOR KSC945	
Q304	1-804-421-11	TRANSISTOR KSC945	
Q307	1-804-428-11	TRANSISTOR KSR1004 (SE210G)	
Q308	1-804-421-11	TRANSISTOR KSC945	
Q309	1-804-421-11	TRANSISTOR KSC945	
Q3A01	1-804-420-11	TRANSISTOR KSA733	
Q3A03	1-804-422-11	TRANSISTOR KTC3203-Y	
Q3A04	1-804-422-11	TRANSISTOR KTC3203-Y	
Q3A05	1-804-422-11	TRANSISTOR KTC3203-Y	
Q3A06	1-804-420-11	TRANSISTOR KSA733	
Q3S01	1-804-420-11	TRANSISTOR KSA733 (SE210B/SX110B)	
Q3S02	1-804-421-11	TRANSISTOR KSC945 (SE210B/SX110B)	
Q3S03	1-804-429-11	TRANSISTOR KSR2001 (SE210B/SX110B)	
Q3S04	1-804-421-11	TRANSISTOR KSC945 (SE210B/SX110B)	
Q3S05	1-804-421-11	TRANSISTOR KSC945 (SE210B/SX110B)	
Q602	1-804-421-11	TRANSISTOR KSC945	
Q6P01	1-804-420-11	TRANSISTOR KSA733	
Q6P02	1-804-420-11	TRANSISTOR KSA733	
Q701	1-804-421-11	TRANSISTOR KSC945	
Q702	1-804-421-11	TRANSISTOR KSC945	
Q703	1-804-421-11	TRANSISTOR KSC945	
Q704	1-804-421-11	TRANSISTOR KSC945	
Q705	1-804-421-11	TRANSISTOR KSC945	
Q706	1-804-421-11	TRANSISTOR KSC945	
Q707	1-804-421-11	TRANSISTOR KSC945	
Q708	1-804-421-11	TRANSISTOR KSC945	
Q711	1-804-419-11	TRANSISTOR KSA643-Y	
Q712	1-804-419-11	TRANSISTOR KSA643-Y	
Q713	1-804-419-11	TRANSISTOR KSA643-Y	
Q714	1-804-419-11	TRANSISTOR KSA643-Y	
Q715	1-804-419-11	TRANSISTOR KSA643-Y	
Q801	1-804-419-11	TRANSISTOR KSA643-Y (SE210B/SE210D)	
Q802	1-804-428-11	TRANSISTOR KSR1004 (SE210G/SX110A/SX110B)	
Q804	1-804-429-11	TRANSISTOR KSR2001 (SE210G/SX110A/SX110B)	
Q805	1-804-428-11	TRANSISTOR KSR1004 (SE210B/SE210D)	
		< RESISTOR >	
R1P101	1-247-825-11	CARBON 560 5% 1/4W	
R1P106	1-247-839-11	CARBON 2.2K 5% 1/8W	
R1P107	1-247-879-11	CARBON 100K 5% 1/8W	
R1P108	1-247-845-11	CARBON 3.9K 5% 1/4W	
R1P115	1-247-817-11	CARBON 270 5% 1/8W	
R1SD11	1-247-880-11	CARBON 110K 5% 1/8W	
R1SD12	1-247-819-11	CARBON 330 5% 1/8W	
R1SD13	1-247-880-11	CARBON 110K 5% 1/8W	
R1SD14	1-247-828-11	CARBON 110K 5% 1/8W	
R1SD15	1-247-880-11	CARBON 110K 5% 1/8W	

Note: The components identified by matk ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified

MAIN

Ref. No.	Part No.	Description			Remarks
R1SD16	1-215-901-11	METAL OXIDE(S)	33K	5%	2W
R1SD31	1-247-815-11	CARBON	220	5%	1/8W
R1SD32	1-247-833-11	CARBON	1.2K	5%	1/8W
R1SR11	1-216-367-11	METAL OXIDE	0.68	5%	2W
R1SR12	1-244-369-11	METAL OXIDE	300	5%	1W
R1SR14	1-247-819-11	CARBON	330	5%	1/8W
R1SS10	1-244-373-11	RESISTOR CEMENT	2.7	10%	2W
R1SS11	1-215-901-11	METAL OXIDE(S)	33K	5%	2W
R1SS32	1-247-831-11	CARBON	1K	5%	1/8W
R1SS33	1-244-372-11	METAL	3K	1%	1/8W
R1SS34	1-244-371-11	METAL	2.2K	1%	1/8W
R301	1-247-839-11	CARBON	2.2K	5%	1/8W
R302C	1-216-651-11	RES-CHIP	1K	5%	1/10W
R303	1-247-837-11	CARBON	1.8K	5%	1/8W (SE210B/SX110B)
R304	1-247-853-11	CARBON	8.2K	5%	1/8W
R305C	1-216-657-11	RES-CHIP	1.8K	5%	1/10W
R306C	1-216-654-11	RES-CHIP	1.3K	5%	1/10W
R308	1-247-831-11	CARBON	1K	5%	1/8W
R309C	1-216-666-11	RES-CHIP	4.3K	5%	1/10W
R311C	1-216-651-11	RES-CHIP	1K	5%	1/10W
R312C	1-216-657-11	RES-CHIP	1.8K	5%	1/10W
R313	1-247-823-11	CARBON	470	5%	1/8W
R314C	1-216-647-11	RES-CHIP	680	5%	1/10W
R315	1-247-841-11	CARBON	2.7K	5%	1/8W
R316C	1-216-653-11	RES-CHIP	1.2K	5%	1/10W
R317C	1-216-639-11	RES-CHIP	330	5%	1/10W
R318C	1-216-639-11	RES-CHIP	330	5%	1/10W
R320	1-247-855-11	CARBON	10K	5%	1/8W
R321	1-247-862-11	CARBON	20K	5%	1/8W
R322	1-247-864-11	CARBON	24K	5%	1/8W
R324	1-247-817-11	CARBON	270	5%	1/8W (SE210G)
R325C	1-216-661-11	RES-CHIP	2.7K	5%	1/10W
R326C	1-216-644-11	RES-CHIP	510	5%	1/10W
R327C	1-216-644-11	RES-CHIP	510	5%	1/10W
R328	1-247-847-11	CARBON	4.7K	5%	1/8W
R329C	1-216-663-11	RES-CHIP	3.3K	5%	1/10W (SE210G)
R330	1-247-847-11	CARBON	4.7K	5%	1/8W
R331C	1-216-635-11	RES-CHIP	220	5%	1/10W
R332	1-247-823-11	CARBON	470	5%	1/8W
R333	1-247-823-11	CARBON	470	5%	1/8W
R334	1-247-807-11	CARBON	100	5%	1/8W
R335	1-247-848-11	CARBON	5.1K	5%	1/8W
R336	1-247-859-11	CARBON	15K	5%	1/8W
R341C	1-216-654-11	RES-CHIP	82K	5%	1/10W
R342	1-247-849-11	CARBON	5.6K	5%	1/8W
R3A01	1-247-857-11	CARBON	12K	5%	1/8W
R3A04C	1-216-651-11	RES-CHIP	1K	5%	1/10W
R3A05C	1-216-687-11	RES-CHIP	33K	5%	1/10W
R3A06C	1-216-657-11	RES-CHIP	180	5%	1/10W
R3A07C	1-218-764-11	RES-CHIP	330K	5%	1/10W
R3A08C	1-216-677-11	RES-CHIP	12K	5%	1/10W
R3A09C	1-216-669-11	RES-CHIP	5.6K	5%	1/10W
R3A10	1-247-831-11	CARBON	1K	5%	1/8W
R3A11C	1-216-657-11	RES-CHIP	1.8K	5%	1/10W
R3A12C	1-216-611-11	RES-CHIP	2.2	5%	1/10W

Ref. No.	Part No.	Description			Remarks
R3A13C	1-216-643-11	RES-CHIP	470	5%	1/10W
R3A14	1-247-863-11	CARBON	22K	5%	1/8W
R3A16	1-247-855-11	CARBON	10K	5%	1/8W
R3A17	1-247-845-11	CARBON	3.9K	5%	1/8W
R3A18	1-247-845-11	CARBON	3.9K	5%	1/8W
R3A19C	1-216-657-11	RES-CHIP	180	5%	1/10W
R3A22C	1-216-664-11	RES-CHIP	3.6K	5%	1/10W
R3A23C	1-216-675-11	RES-CHIP	10K	5%	1/10W
R3A24C	1-216-683-11	RES-CHIP	22K	5%	1/10W
R3A25C	1-216-653-11	RES-CHIP	1.2K	5%	1/10W
R3A26C	1-216-677-11	RES-CHIP	12K	5%	1/10W
R3A27	1-247-848-11	CARBON	5.1K	5%	1/4W (SE210G/SX110A/SX110B)
R3A28C	1-216-666-11	RES-CHIP	4.3K	5%	1/10W
R3A30	1-259-880-11	CARBON	2.2M	5%	1/8W
R3A31	1-247-870-11	CARBON	43K	5%	1/4W (SE210G/SX110A/SX110B)
R3A32	1-247-870-11	CARBON	43K	5%	1/8W
R3A37C	1-216-672-11	RES-CHIP	7.5K	5%	1/10W
R3S01C	1-216-684-11	RES-CHIP	24K	5%	1/10W (SE210B/SX110B)
R3S02C	1-216-673-11	RES-CHIP	8.2K	5%	1/10W (SE210B/SE110B)
R3S03C	1-216-674-11	RES-CHIP	9.1K	5%	1/10W (SE210B/SE110B)
R3S04C	1-216-684-11	RES-CHIP	24K	5%	1/10W (SE210B/SE110B)
R3S05C	1-216-691-11	RES-CHIP	47K	5%	1/10W (SE210B/SE110B)
R3S11	1-247-872-11	CARBON	51K	5%	1/8W (SE210B/SE110B)
R3S12C	1-216-667-11	RES-CHIP	4.7K	5%	1/10W (SE210B/SE110B)
R3S13C	1-216-686-11	RES-CHIP	30K	5%	1/10W (SE210B/SE110B)
R3S14	1-247-851-11	CARBON	6.8K	5%	1/8W (SE210B/SE110B)
R3S15	1-247-852-11	CARBON	7.5K	5%	1/8W (SE210B/SE110B)
R3S16C	1-216-661-11	RES-CHIP	2.7K	5%	1/10W (SE210B/SE110B)
R3S17C	1-216-683-11	RES-CHIP	22K	5%	1/10W (SE210B/SE110B)
R3S20C	1-218-776-11	RES-CHIP	100	5%	1/10W (SE210B/SE110B)
R3S21C	1-216-667-11	RES-CHIP	4.7K	5%	1/10W (SE210B/SE110B)
R3S22	1-247-831-11	CARBON	1K	5%	1/8W (SE210B/SE110B)
R3S23	1-247-864-11	CARBON	24K	5%	1/8W (SE210B/SE110B)
R3S24C	1-218-756-11	RES-CHIP	150K	5%	1/10W (SE210B/SE110B)
R3S25	1-247-837-11	CARBON	1.8K	5%	1/8W (SE210B/SE110B)
R3S26	1-247-855-11	CARBON	10K	5%	1/8W (SE210B/SE110B)
R3S27C	1-218-754-11	RES-CHIP	120K	5%	1/10W (SE210B/SE110B)
R401C	1-216-691-11	RES-CHIP	47K		1/10W (SE210D/SE210G/SX110A)
R402	1-247-807-11	CARBON	100	5%	1/4W (SE210D/SX110A)
R403	1-247-807-11	CARBON	100	5%	1/8W

Ref. No.	Part No.	Description			Remarks
R404	1-247-807-11	CARBON	100	5%	1/8W
R406	1-247-863-11	CARBON	22K		1/4W
					(SE210D/SX110A)
R407	1-247-853-11	CARBON	8.2K		1/4W
					(SE210D/SX110A)
R408	1-247-833-11	CARBON	1.2K		1/4W
					(SE210D/SX110A)
R601C	1-218-770-11	RES-CHIP	560K	5%	1/10W
R602C	1-216-699-11	RES-CHIP	100K	5%	1/10W
R603C	1-216-665-11	RES-CHIP	3.9K	5%	1/10W
R607	1-247-831-11	CARBON	1K	5%	1/8W
R608	1-247-873-11	CARBON	56K	5%	1/8W
R609C	1-216-693-11	RES-CHIP	56K	5%	1/10W
R610	1-247-831-11	CARBON	1K	5%	1/8W
R611	1-247-831-11	CARBON	1K	5%	1/8W
R613	1-247-831-11	CARBON	1K	5%	1/8W
R614	1-247-831-11	CARBON	1K	5%	1/8W
R641	1-247-823-11	CARBON	470	5%	1/8W
R642	1-247-823-11	CARBON	470	5%	1/8W
R644	1-247-831-11	CARBON	1K	5%	1/8W
R650	1-216-345-11	METAL OXIDE	0.47	5%	1W
R651C	1-216-695-11	RES-CHIP	68K	5%	1/10W
R654	1-247-849-11	CARBON	5.6K	5%	1/8W
R655C	1-216-691-11	RES-CHIP	47K	5%	1/10W
R656C	1-216-655-11	RES-CHIP	1.5K	5%	1/10W
R657	1-247-875-11	CARBON	68K	5%	1/8W
R660	1-247-871-11	CARBON	47K	5%	1/8W
R661	1-247-867-11	CARBON	33K	5%	1/8W
R666C	1-216-643-11	RES-CHIP	470	5%	1/10W
R667C	1-216-643-11	RES-CHIP	470	5%	1/10W
R668C	1-216-675-11	RES-CHIP	10K	5%	1/10W
R669C	1-216-675-11	RES-CHIP	10K	5%	1/10W
R670	1-247-847-11	CARBON	4.7K	5%	1/8W
R671	1-247-847-11	CARBON	4.7K	5%	1/8W
R672	1-247-847-11	CARBON	4.7K	5%	1/8W
R673	1-247-879-11	CARBON	100K	5%	1/8W
R674	1-247-855-11	CARBON	10K	5%	1/8W
R675	1-247-837-11	CARBON	180	5%	1/4W
R676	1-247-866-11	CARBON	30K	5%	1/8W
R677	1-247-863-11	CARBON	22K	5%	1/8W
R678	1-247-863-11	CARBON	22K	5%	1/8W
R679	1-247-815-11	CARBON	220	5%	1/8W
R682C	1-216-683-11	RES-CHIP	22K	5%	1/10W
R685C	1-216-687-11	RES-CHIP	33K	5%	1/10W
R686	1-247-831-11	CARBON	1K	5%	1/8W
R687	1-247-831-11	CARBON	1K	5%	1/8W
R688	1-247-831-11	CARBON	1K	5%	1/8W
R690C	1-216-693-11	RES-CHIP	56K	5%	1/10W
R691C	1-216-635-11	RES-CHIP	220	5%	1/10W
R692	1-247-817-11	CARBON	27	5%	1/8W
R693	1-247-871-11	CARBON	47K	5%	1/8W
R695	1-247-807-11	CARBON	100	5%	1/8W
					(SE210B/SX110B)
R697	1-247-807-11	CARBON	100	5%	1/8W
					(SE210B/SX110B)
R698C	1-216-675-11	RES-CHIP	10K	5%	1/10W
R699C	1-216-675-11	RES-CHIP	10K	5%	1/10W
R6P01C	1-216-627-11	RES-CHIP	100	0.5%	1/10W
					(SE210B/SE210D)
R6P02	1-247-807-11	CARBON	100	5%	1/8W
					(SE210B/SE210D)
R6P03C	1-216-661-11	RES-CHIP	2.7K	5%	1/10W
					(SE210B/SE210D)

Ref. No.	Part No.	Description			Remarks
R6P04C	1-216-675-11	RES-CHIP	10K	5%	1/10W
					(SE210B/SE210D)
R6P05	1-247-855-11	CARBON	10K	5%	1/8W
R6P06C	1-216-669-11	RES-CHIP	5.6K	5%	1/10W
					(SE210B/SE210D)
R6P07	1-247-807-11	CARBON	100	5%	1/8W
					(SE210G/SX110A/SX110B)
R6P07	1-247-814-11	CARBON	200	5%	1/8W
					(SE210B/SE210D)
R6P08	1-247-821-11	CARBON	390	2%	1/8W
R6P09	1-247-839-11	RES-CHIP	2.2K	5%	1/8W
					(SX110A/SX110B)
R6P10	1-247-815-11	CARBON	220	5%	1/8W
					(SE210B/SE210D)
R701	1-247-855-11	CARBON	10K	5%	1/8W
R702	1-247-855-11	CARBON	10K	5%	1/8W
R703	1-247-855-11	CARBON	10K	5%	1/8W
R704	1-247-855-11	CARBON	10K	5%	1/8W
R705	1-247-855-11	CARBON	10K	5%	1/8W
R706	1-247-855-11	CARBON	10K	5%	1/8W
R707	1-247-855-11	CARBON	10K	5%	1/8W
R708C	1-216-675-11	RES-CHIP	10K	5%	1/10W
R711	1-247-839-11	CARBON	2.2K	5%	1/8W
R712	1-247-839-11	CARBON	2.2K	5%	1/8W
R713	1-247-839-11	CARBON	2.2K	5%	1/8W
R714	1-247-839-11	CARBON	2.2K	5%	1/8W
R715	1-247-839-11	CARBON	2.2K	5%	1/8W
R716	1-247-828-11	CARBON	75	5%	1/8W
R717C	1-216-648-11	RES-CHIP	75	5	1/10W
R718	1-247-828-11	CARBON	75	5%	1/8W
R719C	1-216-648-11	RES-CHIP	75	5%	1/10W
R720C	1-216-648-11	RES-CHIP	75	5%	1/10W
R721C	1-216-648-11	RES-CHIP	75	5%	1/10W
R722C	1-216-648-11	RES-CHIP	75	5%	1/10W
R723C	1-216-648-11	RES-CHIP	75	5%	1/10W
R727C	1-216-679-11	RES-CHIP	15K	5%	1/10W
R728C	1-216-679-11	RES-CHIP	15K	5%	1/10W
R731	1-247-855-11	CARBON	10K	5%	1/8W
R803	1-247-821-11	CARBON	820	5%	1/4W
R804	1-247-879-11	CARBON	100K	5%	1/8W
					(SE210B/SE210D)
R807C	1-216-648-11	RES-CHIP	75	5%	1/10W
R808C	1-216-648-11	RES-CHIP	75	5%	1/10W
					(SE210B/SE210D)
R809	1-247-828-11	CARBON	75	5%	1/8W
					(SE210B/SE210D)
R810C	1-216-651-11	RES-CHIP	1K	5%	1/10W
					(SE210B/SE210D)
R811C	1-216-651-11	RES-CHIP	1K	5%	1/10W
					(SE210B/SE210D)
R812C	1-216-648-11	RES-CHIP	75	5%	1/10W
R813C	1-216-651-11	RES-CHIP	1K	5%	1/10W
R814C	1-216-651-11	RES-CHIP	1K	5%	1/10W
R815C	1-216-651-11	RES-CHIP	1K	5%	1/10W
R816C	1-216-651-11	RES-CHIP	1K	5%	1/10W
R818	1-247-839-11	CARBON	2.2K	5%	1/8W
					(SE210B/SE210D)

MAIN

Ref. No.	Part No.	Description			Remarks
R819C	1-216-651-11	RES-CHIP	1K	5% 1/10W	(SE210B/SE210D)
R820C	1-216-651-11	RES-CHIP	1K	5% 1/10W	(SE210B/SE210D)
R821C	1-216-687-11	RES-CHIP	33K	5% 1/10W	(SE210B/SE210D)
R822C	1-216-683-11	RES-CHIP	22K	5% 1/10W	(SE210B/SE210D)
R823C	1-218-776-11	RES-CHIP	100	5% 1/10W	(SE210B/SE210D)
R826	1-247-831-11	CARBON	1K	5% 1/8W	(SE210B/SE210D)
R827	1-247-831-11	CARBON	1K	5% 1/8W	(SE210B/SE210D)
R828C	1-216-627-11	RES-CHIP	100	5% 1/10W	(SE210B/SE210D)
		< MODULE >			
RM701	1-804-446-11	MODULE-REMOCON GP1U291Q			
		< SWITCH >			
RS601	1-786-199-11	SWITCH (REC)			
		< SENSOR >			
S601	1-804-439-11	PHOTO-TRANSISTOR PT493F			
S601A	3-067-776-01	HOLDER-SENSOR			
S602	1-804-439-11	PHOTO-TRANSISTOR PT493F			
S602A	3-067-776-01	HOLDER-SENSOR			
SC01	7-685-646-11	SCREW-TAPTITE +BVTP 3x8			
SC02	7-685-646-11	SCREW-TAPTITE +BVTP 3x8			
		< SWITCH >			
SW601	1-786-198-11	SWITCH (MODE)			
SW701	1-786-195-11	SWITCH TACT			
SW703	1-786-195-11	SWITCH TACT			
SW708	1-786-195-11	SWITCH TACT			
SW709	1-786-195-11	SWITCH TACT			
SW711	1-786-195-11	SWITCH TACT			
SW712	1-786-195-11	SWITCH TACT			
SW714	1-786-195-11	SWITCH TACT			
SW718	1-786-195-11	SWITCH TACT			
SW719	1-786-195-11	SWITCH TACT			
SW723	1-786-195-11	SWITCH TACT			
SW724	1-786-195-11	SWITCH TACT			
		< TUNER >			
TM401	1-693-550-11	TM-BLOCK (SE210D/SX110A)			
TM401	1-693-552-11	TM-BLOCK (SE210G)			
TM401	1-693-553-11	TM-BLOCK (SE210B/SX110B)			
		< VARISTOR >			
⚠VA1SS1	1-804-437-11	VARISTOR SVC471D			
		< JUMPER >			
W067	1-400-074-11	INDUCTOR	100uH		
W136	1-400-074-11	INDUCTOR	100uH		
W230	1-804-409-11	DIODE	1N4002		
W505	1-247-807-11	CARBON	100	5% 1/8W	
W513	1-804-409-11	DIODE	1N4002		

Ref. No.	Part No.	Description	Remarks
		< VIBRATOR >	
XT301	1-795-330-11	VIBRATOR CRYSTAL (4.433619MHZ)	
XT601	1-795-332-11	VIBRATOR CRYSTAL (32.768KHz)	
XT602	1-795-331-11	VIBRATOR CRYSTAL (8MHz)	
		< ZENER DIODE >	
ZD1P02	1-804-416-11	DIODE-ZENER MTZJ5.1B	
ZD1P04	1-804-417-11	DIODE-ZENER MTZJ9.1B	
ZD1SS1	1-804-415-11	DIODE-ZENER UZP43B	
ZD401	1-804-414-11	DIODE-ZENER UZP33B	
ZD801	1-804-418-11	DIODE-ZENER MTZJ12B	
ZD802	1-804-418-11	DIODE-ZENER MTZJ12B (SE210B/SE210D)	

MISCELLANEOUS
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⚠200	1-823-023-11	POWER-CORD	(SE210B/SE210D/SX110A/SX110B)
⚠200	1-823-025-11	POWER-CORD (SE210G)	
B410	1-763-704-11	MOTOR-LOADING ASSY	
B560	1-763-703-11	MOTOR-CAPSTAN	
CN3A1S	1-823-022-11	CABLE-FLAT 6P	
CN602S	1-823-164-11	CABLE-FLAT 7P	
G001	1-763-706-11	ASSY-CYLINDER (PAL)	(SE210B/SE210D/SX110A/SX110B)
G001	1-763-707-11	ASSY-CYLINDER (PAL)(SE210G)	
TM401B	3-066-699-01	CONNECTOR BOARD-ASSY	(SE210G/SX110A/SX110B)
TM401B	3-066-699-11	CONNECTOR BOARD-ASSY (SE210B/SE210D)	

ACCESSORIES
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	1-476-516-11	COMMANDER STANDARD (RMT-V257D) (SE210D/SE210G/SX110A)
	1-476-516-21	COMMANDER STANDARD (RMT-V257E) (SE210B/SX110B)
	1-783-213-12	CABLE, CONNECTION (21P)
	1-823-126-11	AERIAL CABLE
	3-066-346-11	MANUAL INSTRUCTION (ENGLISH)(SE210G)
	3-066-347-11	MANUAL, INSTRUCTION (FRENCH) (SE210B/SX110B)
	3-066-348-11	MANUAL, INSTRUCTION (FRENCH) (SE210D/SX110A)
	3-066-348-21	MANUAL, INSTRUCTION (GERMAN) (SE210D/SX110A)
	3-066-348-31	MANUAL, INSTRUCTION (ITALIAN) (SE210D/SX110A)
	3-066-348-41	MANUAL, INSTRUCTION (DUTCH) (SE210D/SX110A)
	3-066-348-51	MANUAL, INSTRUCTION (SPANISH) (SE210D/SX110A)
	3-066-348-61	MANUAL, INSTRUCTION (PORTUGUESE) (SE210D/SX110A)
	3-066-348-71	MANUAL, INSTRUCTION (GREEK) (SE210D/SX110A)
	3-066-349-11	MANUAL, INSTRUCTION (SWDISH) (SE210D/SX110A)
	3-066-349-21	MANUAL, INSTRUCTION (DANISH) (SE210D/SX110A)

Note: The components identified by matk ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified

Ref. No.	Part No.	Description	Remarks
	3-066-349-31	MANUAL, INSTRUCTION (FINNISH)	(SE210D/SX110A)
	3-709-433-01	COVER, REMOTE CONTROL BATTERY	(FOR RMT)